Structured Professional Judgement of Risk in Forensic Psychiatric Practice

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Abstract

The central issue addressed in this thesis was the validation of a novel risk assessment system designed to meet the security requirements of a high secure forensic hospital. To this end, three research strands investigating the clinical, predictive and preventative utility of the system were pursued. This thesis reports the process of the development, adaptation and implementation of a system based on the HCR-20, called the Structured Clinical Judgement: Risk (SCJ: Risk). The first research strand involved investigation of the processes necessary implement a system of structured professional judgement. The conceptual and operational utility of the system were investigated, and successful implementation of the system within clinical practice was demonstrated by compliance of use by clinical teams. A survey was conducted, investigating the perceptions of clinicians in relation to the clinical utility and usability of the SCJ: Risk. Overall acceptance of the pilot and implementation phase of the system was demonstrated, and the system was perceived to assist clinical teams to structure and document risk-related decisions. The second research strand studied the validity of the SCJ: Risk in predicting intra-institutional behaviour. A prospective investigation of the application of the SCJ: Risk to a forensic population detained in conditions of high security was conducted and this demonstrated variation in the predictive utility of the system. The predictive accuracy of subscale items of the SCJ: Risk, and the individual risk factors comprising the subscales of the system were robust for behaviours relevant to violence and suicide/self-harm. However, prediction of behaviours relevant to escape/abscond, vulnerability to risk from others and subversion of security were not demonstrated. The third research strand involved exploration of the preventative utility of the system, specifically if the identification of a patient as high-risk would

minimise the occurrence, or prolong the time to an incident of intra-institutional behaviour. Results illustrated the efficacy of the SCJ: Risk system in the identification of high risk individuals for behaviours relevant to any intra-institutional infraction, violence and self-harm. Patients identified as high-risk displayed a higher prevalence and earlier incidence of relevant intra-institutional behaviour. It is concluded that the system of Structured Clinical Judgement: Risk (as an adaptation of the HCR-20) contributes positively to the overall goals of clarity of risk communication, identification and management of high risk patients within forensic psychiatric practice. However, the extended risk assessment of the SCJ: Risk does not make a significant additional contribution to the parental system on which it is based.

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Thanks are extended to all clinical team members who participated in the pilot, implementation and evaluation of the SCJ: Risk system, and to members of the SCJ: Risk steering group and Chair, Directorate Representatives and Responsible Medical Officers who encouraged individuals to apply the system within clinical practice. Grateful acknowledgement is given to each clinical team member whose contribution to the implementation of the SCJ: Risk has ensured consistently high levels of compliance of use of the system.

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Author's Declaration

I, Clare Richardson, declare that the work presented in this thesis is my own, carried out between September 2005 and July 2009 at the University of Nottingham under the supervision of Professor Kevin Howells.

Chapter One

General Introduction

1.1 Thesis Outline

The primary aim of the empirical work reported within this thesis is to critically examine the application of a system of structured professional judgement within a forensic psychiatric setting.

The thesis begins with an exploration of previous and contemporary approaches to risk assessment, and provides the foundation as to why the application of a system of structured professional judgement might be an important contribution to forensic psychiatric practice. The role of the mental health professional as responsible for the accurate assessment of an individual's risk of offending behaviour is introduced as a context for understanding the complexities and approaches to risk assessment. Three models of risk assessment are discussed which reflect developments within the field of risk assessment. The structured professional judgement model is introduced as the most effective evidence-based method of risk assessment. A range of empirically-based structured clinical decision making schemes applied to a range of offending behaviours are reviewed, illustrative of the prominence of structured professional approaches within clinical practice. The HCR-20 (Webster, Douglas, Eaves and Hart, 1997) as a violence risk assessment scheme and structured professional judgement system is introduced to provide the reader with a context for subsequent investigations within this thesis.

The third chapter describes the processes involved in the practical application of a structured risk assessment tool within a high secure forensic psychiatric setting. This chapter sets the context of subsequent empirical investigations by defining the setting, participants and procedure applied within this thesis. Legislation relevant to

the need to identify patients presenting as high risk in a number of defined categories specific to the needs of a high secure setting is reviewed. This leads to an understanding of the need for a clinically viable risk assessment system to document risk related decisions. The Structured Clinical Judgement: Risk (SCJ: Risk; Richardson and Hogue, 2006) system is introduced as a clinical guideline developed to address the security needs of a high secure hospital. The construction of SCJ: Risk factors, utilising the existing evidence base of the HCR-20 to structure clinical judgements is described. Compliance to the use of the SCJ: Risk within clinical practice is investigated. Results are presented and proposed steps for future implementation in other forensic settings are addressed.

In Chapter Four, the first of three empirical investigations designed to establish the evidence-base of the SCJ: Risk is presented. The opinions of clinical team members of various professional grades are investigated to ascertain the perceived clinical usability and utility of the SCJ: Risk. Surveys conducted during a pilot and implementation phase designed to investigate nine core areas are presented. The results of the survey allow an understanding of the perceived efficiency, effectiveness, and practical use of the system within clinical practice. The study identifies the processes needed to ensure the successful introduction and implementation of a system of structured professional judgement to a forensic setting. In this way, the investigation informs guidance as to the applicability of such a system to other clinical settings.

The second empirical study (Chapter Five) is an investigation of the ability of the SCJ: Risk to predict behaviours of interest. A review of the literature evidencing

the predictive validity of the HCR-20 is presented as a context for the conceptual, methodological and statistical considerations necessary to establishing the predictive validity of the SCJ: Risk within a high secure forensic population. The relationship between individual risk factors and subscale items comprising the SCJ: Risk, and subsequent intra-institutional infractions relevant to; violence, self-harm/suicide, escape, vulnerability of risk from others, and the subversion of security are established. Variability of the predictive accuracy of individual risk factors and subscales are discussed and recommendations directing future investigations away from a prediction-based, toward a prevention-based paradigm are introduced.

The third empirical investigation (Chapter Six) develops the findings of the previous chapter to investigate the utility of the SCJ: Risk system in managing and preventing behaviours of interest. The relationship between the identification of patients as high risk, presence of high risk behaviours and the time to the first incident of intra-institutional infractions is investigated. Results are presented and discussed within the framework of a prevention-based paradigm of risk assessment and management and recommendations for the development of this research strand are considered.

The final chapter (Chapter Seven) details a summary of the empirical investigations, implications of the application of the SCJ: Risk system within clinical practice, and provides recommendations for future research.

Chapter Two

Approaches to Risk Assessment and Management

2.1 Introduction

2.1.1 The Role of the Mental Health Professional and Risk Assessment

Significant empirical progress in forensic risk assessment has been witnessed in the last forty years. This has lead to a trend to develop clinical practice guidelines in an attempt to assist decision-making processes where the risk of future offending behaviour is possible. A central role of mental health professionals within the criminal justice system is the assessment, management and communication of an individual's propensity, or risk for future violent behaviour and recidivism. These judgements often have significant consequences, including the detention of individuals, the loss of civil liberty and the identification of treatment and management interventions with the aim of reducing future recidivism. The role of the mental health professional in accurately assessing an individual's risk of violence is therefore critical to ensuring the protection of the public and the individual detained.

Phelan, Link, Stueve and Pescosolido (2000) report a belief in the general public that there exists a direct relationship between mental disorders and dangerousness (or risk). This perception has resulted in public apprehension in accepting an individual with a mental disorder as a member of their community (as a neighbour, colleague, or family member). In the United Kingdom, the Conservative government's move in the 1980s to "Care in the Community" witnessed the discharge (deinstitutionalisation) of mentally ill people previously held in psychiatric facilities (Sines, Appleby and Frost, 2005). Public opinion has been adversely impacted by media attention to recidivism of patients previously detained in secure settings and associated failed predictions by mental health professionals (Douglas

and Webster, 1999). This has lead to the reform of legislation to improve accuracy of risk assessment to ensure the protection of society without restricting the liberty of individuals disproportionately (Webster and Hucker, 2007).

The role of the mental health professional as expert witness remains commonplace in UK courts. Their opinion is also reflected in institutions of detention during annual hearings (to determine possible release decisions or transfer to less secure environments) and decisions concerning reintegration into society and the provision of care in the community. This is despite concern regarding the accuracy of psychiatric predictions made by clinicians (reflected in Case Law for example, Barefoot v. Estelle, 1982; Kansas v Hendricks, 1997; Peck v Counseling Service of Addison County 1985; Jones v United States, 1983; cited in Norko and Baranoski, 2005).

Within a general civil setting in the U.S.A, the Tarasoff v. Regents of the University of California (1976) was a landmark case that was instrumental in identifying that the opinions of mental health professionals in relation to violent conduct should be utilised to inform the duty of care toward protection of the potential victim. The Tarasoff (1976) law reflects events concerning a disclosure by a student to his counsellor that he wished to kill a woman (Tatiana Tarasoff). This desire was actualised despite the counsellor alerting the individual's supervisor and police, who after interview deemed the man low risk. A malpractice suit was actioned against the counsellor on the basis that she had failed to warn the victim.

Case Laws and policies emerging from litigation associated with malpractice claims have therefore highlighted a core role of mental health professionals as one of duty to protect on the basis of knowledge related to an individual's risk, and is applicable to the U.K. This duty encompasses protection of identifiable victims (specific individuals), victim types (individuals with perceived shared group characteristics), and society in general (where risk to specific or victim types is unknown; Douglas and Webster, 1999). The necessity to predict violence is therefore clearly a requirement of mental health workers. This has been reflected in clinical and empirical attempts to improve the accuracy of risk assessment to identify risk-related behaviours and develop associated risk management strategies and interventions to minimise the risk. In this way, the ultimate goal of reduction of recidivism and protection of the individual and society may be facilitated.

Wider case law has therefore had a direct impact on focusing attempts to predict undesirable acts. However, the predictive accuracy of mental health professionals has been questioned (Webster and Bailes, 2004). Monahan (1988) argued this reflected clinician's lack of knowledge, rather than ability, and that such knowledge could be acquired by attention to developments within the literature and best practice guidelines.

The interaction between research evidence and clinical practice has been apparent within the literature produced over the past decade. Developments in forensic psychiatry have included a move away from a prediction-based paradigm of risk assessment to a prevention-based ethos incorporating the process of risk management. The reformulation of risk assessment in current thinking within

forensic psychiatry may therefore be understood to be 'the process of identifying and studying hazards to reduce the probability of their occurrence' (Hart, 1998). This development from prediction to prevention is a clear example of the influence of research on the practical application of risk assessment in clinical practice (explored in Chapter Six).

2.1.2 Application of the Scientist-Practitioner Model to Risk Assessment

Douglas, Cox and Webster (1999) apply the conceptual framework of the scientist-practitioner model to the real world application of risk assessment. The authors assert the need for a flexible and clinically collaborative approach to risk decision making that utilises research findings (reflecting developments and understanding in current literature) and clinical practice (Nezu, 1996). Stricker (1992) states 'not only are practitioners who are not informed by research offering an inferior brand of treatment, not only are they less than honest clinicians, but they are unethical in their practice' (p.546 cited in Douglas and Webster, 1999). It is therefore critical that there is a reciprocal influence between research and practice.

A flexible, but standard methodology of employing assessment guides to inform risk decision-making has been advocated as an appropriate way to ensure adherence to the ideal of the scientist-practitioner model. Borum (1996) stated that '(d)espite substantive advances in knowledge about the risk for violent behaviour among people with mental disorder, there have been virtually no systematic efforts to incorporate this information into a useful, empirically based framework for clinical assessment' (p. 947). Webster, Douglas, Eaves and Hart (1997) remarked that '...the greatest challenge in what remains of the 1990s is to integrate the almost

separate worlds of research on the prediction of violence and the clinical practice of assessment. At present the two domains scarcely intersect' (p.1, cited in Douglas and Webster, 1999).

Over the past decade there have been significant developments in the field of risk assessment, and a number of risk assessment schemes have been developed to contribute and provide guidance to evidence best clinical practice in an attempt to address the imbalance between scientist and practitioner. This has been aided by attempts to integrate research and clinical practice via carefully constructed assessment schemes such as the HCR-20 (Webster, Douglas, Eaves and Hart, 1997). This thesis presents the practical application and evaluation of such a scheme that adheres to the scientist-practitioner model.

2.1.3 Clinical *v* Actuarial Debate

A pervading debate within the risk assessment literature relates to methodologies applied to risk assessment. This may be seen as one component of the larger framework of the scientist-practitioner distinction outlined above. Controversies between clinical (practitioner) and actuarial (scientific) approaches to risk assessment, first raised by Meehl (1954) over fifty years ago, remain active within the literature. The 'clinical versus actuarial' debate dichotomises the *process* of risk decision-making (Douglas, *et al.*, 1999). The debate has been associated with the types of variables encompassed within each approach, traditionally pitching 'dynamic'/clinical (changeable) factors against 'static'/historical (unchangeable) factors. However, the clinical / actuarial distinction was not intended to describe the types of variable (static or dynamic), but throughout the literature there is a tendency to equate the term actuarial with static risk factors, and clinical with dynamic risk

factors. This debate may be seen to reflect the move from prediction to prevention-based approaches to risk assessment, as the ability to promote and evidence change in human behaviour is recognised. This dichotomy illustrates the first two of the three approaches (or 'generations') of risk assessment that have been prevalent in the development of violence risk assessment systems.

2.2 Generations of Risk Assessment

2.2.1 The First Generation of Risk Assessment: The Clinical Approach

The 'first generation' of clinical risk assessment methods may be understood as the application of professional judgement. Two different procedures may be adopted; unstructured professional judgement and anamnestic risk assessment. The first procedure, 'based solely on unaided clinical judgement' (Dolan and Doyle, 2000, p.304) conforms to the unstructured professional judgement model. The approach affords the opportunity for clinicians to make risk-related decisions specific to current clinical presentation on the basis of experience. The process of clinical judgement may be understood as the unstructured collection of information. General conclusions and formulations as to the appropriate future planning for the individual may be conducted via an interview with the individual, review of the files, and discussion with colleagues, however no set structure exists. The final opinion would be based purely on the interpretation of the clinician(s). The defensibility of these judgements is therefore problematic, as recall as to the decision-making process will not necessarily be documented according to a standardised framework.

Another subcategory of the clinical assessment that imposes a limited framework to guide decision-making is the anamnestic approach. This approach to

clinical judgement is not entirely unstructured. Within this approach, clinicians' judgements are based on detailed consideration of an individual's history to identify risk factors relevant to the subject's prior behaviour. Professional opinion is therefore guided by a restricted framework determined by the clinician. The goal of this approach is the identification of risk factors and targeted intervention to reduce the undesirable behaviour of interest. By focusing on historical variables, the approach neglects consideration of dynamic variables relevant to the individual assessed. Douglas and Webster (1999) define these dynamic variables as including 'emotional, psychiatric, or attitudinal experiences, which are subject to fluctuation' (p.195). The anamnestic approach may therefore disregard the possibility of an escalation, de-escalation, or even extinction of behaviours of interest, and may not allow consideration of progress made in response to treatment intervention(s), and the presence of protective factors that may limit the possibility of future recidivism.

It has been argued that clinical approaches provide important information on risk behaviours, and clinical judgements have been shown to be more accurate than chance (Gardner, Lidz and Mulvey, 1996). The method offers flexibility in understanding stresses related to individuals, and informs risk management strategies for individuals, critical to violence prevention (Snowden, 1997; Hart, 1998). The approach has also shown multi-disciplinary team consensus ratings to be as robust with well-validated actuarial assessment methods (Fuller and Cowan, 1999).

However, the approach has been criticised. Actuarial approaches outperform clinical assessments across a diverse range of offender types (Bonta, 2002). Grove and Meehl (1996) assert that 'clinical experience is only a prestigious synonym for

anecdotal evidence when the anecdotes are told by somebody with a professional degree and a licence to practice a healing art'. Monahan (1984) found only one in three unstructured clinical predictions of violence to be accurate. Criticisms of the method include low inter-rater reliability, low validity and a failure to specify the decision-making process (Dolan *et al.*, 2000; Webster, Douglas and Eaves, 1997) and 'inferior predictive validity compared to actuarial predictions' (Dolan *et al.*, 2000, p.304). Overall, the unstructured or semi-structured clinical approach has therefore been seen to yield poor predictive efficacy and has been rejected by policy makers as a suitable use for risk assessment (Risk Management Authority, 2007).

2.2.2 The Second Generation of Risk Assessment: The Actuarial Decision Making Approach

Historically, actuarial scales have been used to identify individuals who are likely to pose a risk to society. The first actuarial scheme proposed by Lombroso in the early 20th century was constructed from the observations of autopsies of criminals. From this an eight item checklist was developed to identify individuals who resembled 'species from an earlier evolutionary period' (Bonta, 2002). Items included factors such as very long arms, large and protruding lips, flattened nose (indicative of a thief), or a beak (indicating a murderer). Other characteristics of offenders included ears "standing out like a chimpanzee" and a chin, long "as in apes", and eye defects. This scheme was adopted by the federal Government as a theory from which to ascertain deprivation of liberty and the death penalty.

Statistical predictions to inform the accuracy of risk prediction have become more sophisticated. The 'second generation' of actuarial risk assessment instruments

(ARAIs), or "mechanical" / "algorithmic" approaches (Grove & Meehl, 1996, p.293) methods utilise statistical techniques to generate risk predictors, and provide a predetermined framework for clinicians to code items relevant to risk (Meehl, 1954). Formal algorithmic approaches may therefore be applied to classify the probability of risk of an identified future outcome.

This approach has been successfully utilised by other agencies wishing to assess the risk of individuals. Actuarial analysis has provided the basis for decision-making processes related to the calculation of insurance premiums. Underwriters consider key variables based on previous factors that have correlated positively or negatively to the incidence (or probability) of an accident (e.g. age, gender, engine size, modification from manufacturer's original specification), or theft (geographical area, parking of vehicle at night). A numerical score may be allocated to a range of risk factors known to be predictive of outcome behaviours of interest (accident, theft), yielding an overall figure indicative of level of risk from which a premium may be calculated. This process is possible due to detailed information about large numbers of individuals for whom data related to certain risk factors may be correlated with the incidence of accidents or theft to identify which variables increase the likelihood of a claim. In the same way, forensic psychiatry and psychology has attempted to establish empirical relationships between risk factors and the criterion variable (outcome behaviour of interest, for example violence). Various statistical methods such as logistic regression have been used in the development of actuarial schemes to identify elevated risk of violence and other undesirable behaviours within individuals and groups (Borum, 1996).

Actuarial schemes for assessing risk of violence include the Hare Psychopathy Checklist Revised (PCL-R; Hare, 1991, 2002); Psychopathy Checklist – Screening Version (PCL-SV; Hart, Cox, Hare, 1995) and Violence Risk Scale (VRS, Wong and Gordon, 2001). Risk assessment schemes to identify risk of sexual recidivism utilising the actuarial approach include the Sex Offender Risk Appraisal Guide (SORAG; Quinsey, Harris, Rice & Cromier, 2006); Rapid Risk Assessment for Sex Offence Recidivism (RRASOR; Hanson, 1997); Static 99 (Hanson & Thornton, 1999); Minnesota Sex Offender Screening Tool – Revised (MnSORT-R; Epperson, Kaul & Hesselton, 1998); Sex Offending Needs Assessment Rating (SONAR; Hanson & Harris, 2000) and general recidivism assessed by application of the Level of Service Inventory (LSI-R; Andrews & Bonta, 1995), and the Offender Group Reconviction Scale (OGRS ; Taylor, 1999). A summary of each of the tools is included in Table 2.1.

The actuarial method has greater support than clinical approaches in determining reliable predictive accuracy. However, the processes involved in risk decision-making for forming business decisions are very distinct from the processes and complexities involved in risk decision-making of offending behaviours. Webster and Hucker (2007) assert that the complex issues within a forensic context reflect greater uncertainty than other applications. Uncertainty may be due to lower numbers of forensic individuals (hundreds) compared to civilians (millions), and so the attempt to produce group based norms to guide the assessment process for certain individuals may be less reliable within a forensic population (see Chapter Five for a full discussion).

This actuarial method has greater support than clinical approaches in determining reliable predictive accuracy. However, such a method has its limitations. The technique allows a comparison of norms generalised from a population for application to the individual under assessment. The risk predictor variables identified in actuarial risk assessment tools and behaviour rating scale are often based on the use of meta-analyses. As a result, Kemshall (2001) argues that the risk predictors result in overly simplistic outcomes that fail to capture the complexity of the individual processes involved. Hart, Mitchie and Cooke (2007) assert that professionals should avoid use of ARAIs, 'as the predictive accuracy of these tests may be too low to support their use when making high-stakes decisions about individuals', and review the 'difficulties of predicting the outcomes for groups versus individuals' (p.63). Despite the criticisms of the actuarial approach, group-based data comparing the likelihood of an 'individual's failure or success rate relative to individuals with many of the same basic characteristics' has been utilised to inform decisions related to regime, level of security and subsequent release (Webster and Hucker, 2007).

Dolan and Doyle (2000) state that schemes focusing entirely on a limited number of variables may 'fail to prioritise clinically relevant variables and minimise the role of professional judgement' (p.304) by limiting decision making to risk factors thought to be predictive of violence, at the expense of more flexible approaches. Reliance on a few risk factors (therefore disregarding the possibility of the influence of other static and dynamic factors), therefore limits identification of other potential variables that may be relevant. The approach also fails to allow consideration of the presence of mitigating (or protective) aspects of behaviour (such

as successful participation in offending behaviour programmes) that may reduce an individual's risk.

Bonta (2002) criticises the actuarial approach suggesting that it fails to consider any underlying theory of behaviour changes over an individual's life span, including individual and environmental factors. A further assertion is made, that if there were such an integration of theory, there would be many more items of a dynamic nature in the original construction of these schemes. In addition to the failure of some assessment schemes to allow opportunity for consideration of the dynamic factors on future behaviour, the 'additive nature' of risk factors may not be seen as prevalent in actuarial approaches. For example, the interaction between risk factors such as substance misuse and major mental illness may not be considered in making a risk-related judgement. It is for this reason that the approach has been criticised as being limited. Webster and Hucker (2007) cite an analogy between clinicians and meteorologists. The role of the meteorologist is informed by the output of computational models that are then amended according to locality. In this way the experience of the expert may add value to a judgement and subsequent action. This may be an appropriate strategy to adopt within mental health risk assessment decision-making processes.

2.2.3 Summary of First and Second Generation Approaches to Risk Assessment

Each approach to risk assessment has its limitations. The clinical approach has been criticised for its unstructured, subjective interpretation and the actuarial approach for its narrow focus and reliance upon group-based norms and deterministic framework of risk factors and focus on prediction. As Reid (1992, p.949) asserts: 'It is clear...that we cannot, and will never be able to predict with reasonable medical certainty future violence'. Whichever approach is adopted, it is unlikely that unstructured judgements in isolation, or reliance on numerical values in isolation will increase the accuracy of risk related judgements. It may therefore be argued that an adherence to both approaches is necessary (Monahan and Steadman, 1996) and application of systems that considers both clinical and actuarial approaches encompassing both static and dynamic factors should be adopted. By considering both historical and current factors of an individual's behaviour, clinical experience may then be utilised to make inferences as to not only the possibility (prediction) of future behavioural manifestations, but also the probable frequency, severity and victim(s). Consolidation and consideration of the full range of risk factors will then inform the formulation of risk management plans to assist in the prevention of antisocial behaviours.

The debate as to which approach is 'best' appears to be unresolved, and despite concerns as to the accuracy of the predictive accuracy of clinicians, courts and mental health review tribunals rely on the opinion and risk-related judgements of mental health professionals. The perfect prediction approach does not exist, but, in its absence, clinicians should be informed by and adhere to an approach that is based on the 'best practice' available at the time (Webster and Hucker, 2007).

2.2.4 The Third Generation of Risk Assessment: Structured Professional Judgement Approach as Evidence-Based Clinical Practice

The clinical versus actuarial debate has had implications for the development of the 'third generation' of risk assessment known as structured professional judgement. Structured professional judgement (SPJ) is an approach that combines both actuarial and clinical methods. The approach has integrated the benefits of research with the process of violence risk assessment in clinical practice. The combined approach has bridged the gap between the two methods, and between the dichotomy of group and individual risk assessment techniques. The approach may be utilised by clinicians to assist the formulation of opinions related to risk judgements by applying the evidence base for risk factors to individual patient assessment (Bouch and Marshall, 2005).

Clinical risk prediction following structured clinical judgement is therefore informed by empirical knowledge, and by the experience of the professionals making the judgement, and so encompasses the scientist-practitioner model. The system allows clinicians to use their professional discretion, and is less restrictive when compared to actuarial measures alone (Hart, 1998). Structured professional guidelines have been constructed to provide a framework from which clinicians may consider risk factors informed by theory and empirical evidence. In this way, guidelines should be indicative of the outcome behaviour of interest. The approach differs from the actuarial approach, as equal weighting is not allocated to each of the risk factors presented, and the overall evaluation of risk is determined by the assessor(s) professional judgement (Webster and Hucker, 2007).

Different outcomes of risk may result from the application of different risk assessment processes. Application of an actuarial scheme may result in identification of an individual as high risk of future recidivism due to his offending history. The same individual, assessed using a structured professional judgement tool, may be assessed as low risk. An example may be a violent offender who, at a young age was convicted of charges of grievous bodily harm, and armed robbery, but as a result of being shot and injured at the scene of the offence became paralysed. Assessment utilising an actuarial scheme would identify the individual as high risk due to the presence of static risk factors. Assessment using professional judgement would allow flexibility of decision making to allow for consideration of factors that reduce the same individual's risk.

The development of 'empirically-based structured clinical decision-making schemes' has therefore resulted in a recent focus on the management of high-risk behaviour (Macpherson and Kevan, 2004, p.63). The SPJ approach and associated guidelines may therefore be used to guide discussions within multidisciplinary teams, resulting in the formulation of individualised risk management plans allowing for consideration of idiosyncratic factors.

2.3 Empirically-Based Structured Clinical Decision-Making Schemes

Table 2.1 includes a number of actuarial measures and structured professional guidelines used to determine different types of risk tailored to the needs of the population under study. Broad categories include assessment specific to the assessment of violent or sexual recidivism, spousal violence, general risk, and risk of violence within the workplace.

Table 2.1. Summary of Structured Guides for Assessing Offending Behaviour (Descriptors Adapted from Webster, 2004)

Risk Category	ARAI	SPJ	Abbreviation	Risk assessment tool	Aim / Use
Violence	√		PCL-R	Hare Psychopathy Checklist Revised Hare (1991, 2002)	20 item actuarial rating scale used to assess likely future recidivism and violent offending scored on the basis of semi-structured clinical interview and review of clinical records; scores are incorporated into a number of other risk assessment schemes; a robust predictor of violence
	√		PCL-SV	Psychopathy Checklist – Screening Version Hart, Cox, Hare (1995)	12 item abbreviated version of the PCL-R used to screen for the possible presence of psychopathy
	√		VRS	Violence Risk Scale Wong and Gordon (2001)	29 item scale (6 static, 23 dynamic factors) used to assess the risk of violent recidivism in offenders utilises a section to assess for change in risk level as a consequence of treatment intervention
		√	HCR-20	Historical/Clinical/Risk Management–20 Webster, Douglas, Eaves, & Hart (1997)	20 item SPJ system containing 10 historical, 5 clinical, and 5 risk management factors capturing past, present and future considerations
		√	HCR-20CG	Historical/Clinical/Risk Management–20 Companion Guide Douglas, Webster, Eaves, Hart & Ogloff (2001)	accompanying manual and companion guide to the HCR-20 is a resource for assessors to access relevant literature and guidelines intended for use with civil psychiatric, forensic and criminal justice populations
		√	START	Short Term Assessment of Risk and Treatability Webster, Martin, Brink, Nicholls and Middleton (2004)	20 item structured professional risk assessment scheme used to assess the risk within a short timeframe (days and at most a maximum of eight weeks) in relation to violence (as the HCR-20) but facilitating consideration of other risk factors associated with self-harm, suicide, substance abuse, risk of being victimised and unauthorised leave. Idiosyncratic risk factors are also emphasised in assessment of risk
		√	VRAG	Violent Risk Appraisal Guide Quincey, Harris, Rice, Cormier (1998)	12 item actuarial scale used to predict risk of violence within a specific time frame following release in violent, mentally disordered offenders scored using clinical records and incorporates the PCL-R score into total calculation of risk

Risk Category	ARAI	SPJ	Abbreviation	Risk assessment tool	Aim / Use
Violence (children and youth)		√	EARL-20B	Early Assessment Risk List for Boys Augimeri, Koegl, Webster & Levene (1998)	20 item SPJ tool used to measure the potential of violence in boys under the age of 12 risk factors are categorised according to family, child and responsivity
		√	EARL-21G	Early Assessment Risk List for Girls Levene, Augimeri, Pepler, Walsh, Webster & Kogel (2001)	21 item SPJ tool with the EARL-20B as its foundation used for for the assessment of girls under 12 years accounts for variability between genders
Spousal Violence Risk		√	SARA	Spousal Assault Risk Assessment Guide Kropp, Hart, Webster & Eaves (1995)	20 item SPJ assessment tool used to assess risk of assault toward a spouse Targeted toward men with previous history of spousal assault
Sexual		√	SVR-20	Sexual Violence Risk Boer, Hart, Kropp, & Webster (1997)	20 item violence risk assessment used to assess risk of violence in sexual offenders 11 factors relate to psychosocial adjustment, 7 sexual offences, 2 future planning allowances for changes in behaviour are included
	√		SORAG	Sex Offender Risk Appraisal Guide Quinsey, Harris, Rice & Cromier (2006)	14 item actuarial scale modified from the VRAG used to assess the risk of violent and sexual recidivism of sex offenders with previous convictions within a specified period of release uses clinical records for the scoring of items and utilises PCL-R scores to inform the in the overall judgement of risk
	√		RRASOR	Rapid Risk Assessment for Sex Offence Recidivism Hanson (1997)	4 item brief actuarial scale used for screening for sexual recidivism applied to males for whom at least one sexual offence has resulted in conviction uses clinical records for the scoring of factors
	√		STATIC-99	Static 99 Hanson & Thornton (1999)	10 item scale modified from the RRASOR (encompassing factors from the scale) used to assess sexual offenders and the long-term potential for sexual recidivism

	√		MnSORT-R	Minnesota Sex Offender Screening Tool – Revised Epperson, Kaul & Hesselton (1998)	16 item actuarial scale including static and dynamic factors indicative of future risk of sexual recidivism relevant to offending histories specific to intra-familial child molesters and rapists
Risk Category	**ARAI**	**SPJ**	**Abbreviation**	**Risk assessment tool**	**Aim / Use**
	√		SONAR	Sex Offending Needs Assessment Rating Hanson & Harris (2000)	9 item actuarial scale (5 static, 4 dynamic) used to quantify change in level of risk for individuals with a history of sexual offending
General Risk/ Recidivism	√		LSI-R	Level of Service Inventory Andrews & Bonta (1995)	54 item actuarial guide applied to adult offenders of both genders to assess the likelihood of future recidivism in general also used to inform treatment planning and level of supervision
	√		OGRS	Offenders Group Reconviction Scale Taylor (1999)	9 item actuarial guide used as a predictor of reoffending yields a percentage probability of reconviction scored on the basis of the presence of static factors associated with age, gender and criminal history comprises the standardised system of predicting reoffending in the probation service of England and Wales
Workplace Risk		√	WRA-20	Workplace Risk Assessment Bloom, Eisen, Pollock & Webster (2000)	20 item scale used to assess violence risk within a range of workplace settings by consideration of the presence or absence of situational and environmental factors
		√	ERA-20	Employee Risk Assessment Bloom, Eisen & Webster (2001)	20 item scale used to supplement the WRA-20 to assess the risk of future violence by individual employees within a range of organisations

A number of structured professional assessment schemes have evolved from actuarial schemes (such as the PCL-R). As illustrated in the table above, SPJ guidelines for the assessment of violence recidivism include the HCR-20, HCR-20CG, START, VRAG, EARL-20B, EARL-21G, and the SARA (for the assessment of spousal violence recidivism). Schemes adopting the SPJ approach have also been developed to assess risk of sexual recidivism (SVR-20) and violence within the workplace (WRA-20; ERA-20). Each encompasses a framework of decision-making variables based on clinical and theoretical knowledge. The partnership between research and clinical practice has been well established in these (predominantly North American) systems, and their use has been reflected in best practice guidelines within the UK.

The development of explicit practice guidelines has assisted in evidencing adherence to Tort liability principles. According to Tort principles (similar to the Tarasoff law above), if a mental health professional is challenged as to their judgement, an evaluation will be made as to 'whether the decision was reasonably made' on the basis of the available information (Borum, 1996, p.952), but they will not be held responsible for the accuracy of the decision. By incorporating structured guidelines in clinical practice a consistent, defendable process of risk assessment may be demonstrated if challenged (for example during a malpractice claim, or defending a judgement at Mental Health Review Tribunal).

Macpherson and Kevan (2004) assert that mental health professionals have a responsibility to demonstrate evidence-based risk assessments. In the UK, the Department of Health's (DOH, 2007) *Best Practice in Managing Risk* documentation states that: 'Where suitable tools are available, risk management should be based on assessment using the structured clinical judgement approach', advice that is consistent with recommendations from the Scottish Risk Management Authority (RMA, 2007). NICE guidelines (January, 2009) also recommend the use of structured clinical assessments (explicitly, the HCR-20) to develop an effective risk management strategy within forensic services. As the SPJ approach combines both actuarial and clinical methods, associated guides, therefore, integrate the benefits of research with the process of risk assessment in clinical practice. The combined approach has bridged the gap between the two methods, and between the dichotomy of group and individual risk assessment techniques. The approach may be utilised by clinicians to assist opinion related risk judgements by combining the evidence base for risk factors with individual patient assessment. In this way the SPJ approach may be seen to promote the transparency of decision-making within the framework of clinical governance (Bouch and Marshall, 2005).

2.4 The HCR-20

The HCR-20 (Webster *et al.*, 1997) is a widely used violence risk assessment scheme that utilises the SPJ format. It was developed with the aim of improving the accuracy of risk assessment and violence prediction within clinical practice and contains variables whose relationship with violence is supported by research. The risk assessment scheme was designed for use where there are a 'high proportion of persons with histories of violence, and a strong suggestion of mental illness or personality disorder' (Webster *et al.*, 1997, p.5), and so is relevant to community, hospital and prison settings. Combining the predictive power of both actuarial (static) and dynamic (changeable) factors, the HCR-20 comprises three sections. The scheme organises empirically and theoretically defined risk factors for violence into the past, present and future. The H (Historical) section consists of ten items reflecting past violent behaviour, diagnoses of mental illness/personality disorder, psychopathy and social maladjustment. The C (Clinical) section comprises five items concerning dynamic clinical factors indicative of increasing violence risk (current clinical presentation). The final, R (Risk Management) section of five dynamic items, assesses individual's adjustment to future circumstances that may aggravate or mitigate prospective risk of violence.

2.4.1 Historical, Clinical and Risk Factors

The Historical items of the HCR-20 comprise fifty per cent of the risk factors and include: H1, previous violence; H2, age at first violent incident; H3, relationship instability; H4, employment problems; H5, substance use problems; H6, major mental illness; H7, psychopathy (scored using the PCL-R); H8, early childhood maladjustment; H9, personality disorder; and H10, prior supervision failure.

Five Clinical items are related to a person's current functioning, and contribute to twenty-five per cent of the overall scheme. Factors include: C1, lack of insight; C2, negative attitudes; C3, active symptoms of major mental illness; C4, impulsivity; and C5 unresponsiveness to treatment. It is anticipated that the dynamic factors will change over time (supported by subsequent assessments), and hence can be the focus of intervention and management strategies.

The remaining five Risk Management items concern assessment of factors associated with future likelihood of risk related behaviours. Assessors are asked to assess the likelihood of behaviour for the coming months. The items include: R1, plans lack feasibility; R2, exposure to destabilisers; R3, lack of personal support; R4, noncompliance with remediation attempts; R5, stress. Within this category a distinction between the nature of likely future 'containment' is made. For example, risk-related judgements made within the context of further detention within an institution versus reintegration into the community may yield distinct outcomes.

The items of the HCR-20 are supported from item definitions that may be readily accessed by assessors by use of the associated manual (see Table 3.1, Chapter Three for a summary of item definitions). Detailed scoring instructions guide judgement as to how to appropriately score an individual in relation to the item defined. The definitions allow for a common language of understanding between clinicians from whom, in the absence of structured definitions may apply the influence of differing theoretical perspectives or understanding.

2.4.2 Scoring of the HCR-20

Each of the twenty items can be scored on a three-point scale indicative of the presence, possible presence or absence of each of the factors. A 0 score indicates the absence or lack of applicability to the item; 1 represents the possibility of presence of the item; and 2 reflects the definite presence of the risk factor. Items may be omitted in the instance of unreliable or missing information. The scores on each item may then be added to yield a subscale scores for each cluster of risk (20 for Historical, 10 for Clinical, and 10 for Risk Management) and a total score of 40.

2.4.3 Final Judgements of Risk

After consideration of risk factors, the assessor(s) must then reach a summary judgement relating to overall violence risk within either an institution or community environment using a three-point scale. Final risk judgements may be: 'Low' reflecting belief that the individual does not present a risk of future violence (or presents as very low risk); 'Moderate' scores may be allocated to individuals for whom an elevated risk for violence has been identified; and a 'High' score would represent a very high risk for future violence.

2.4.4 Risk Management Plans

In response to these summary judgements, available resources may be allocated. For example, following a judgement of low risk, an individual may be deemed as not requiring additional supervision or intervention strategies outside the normal constraints of the institutional regime. A risk management plan may be developed and implemented in response to a judgement of moderate risk, including an identified date for review to ascertain elevated or reduced levels of risk, and the

further adjustment of risk management plans. A high-risk judgement should act as a trigger for the need to develop and implement a carefully constructed risk management plan to encompass arrangements for intervention and supervision as a priority. A shared understanding between clinical team members as to the likely nature, severity and frequency of anticipated violent behaviours should be promoted in an attempt to minimise the likelihood of the behaviour manifesting.

The authors of the HCR-20 gave equal weighting to the number of static and dynamic items. Although a numerical score is allocated to each of the items yielding subscale and total scores, guidelines are not given in terms of categorisation of individuals. That is, there are no attempts to allocate a level of risk scores on the basis of numerical value. An individual scoring 10 from the possible 40 may be identified as high risk if, for example he displays active symptoms of major mental illness (for example psychosis adversely affecting self-control (scored 2), coupled with negative attitudes (scored 2), and an offending history from an early age (scored 2) of a severe nature (scored 2) resulting in the murder of his wife (evidencing relationship instability, scored 2), but displaying an absence of any other factor. Conversely, an individual may have the presence of all the Historical items (scored 20), impulsivity (scored 2), lack of personal support (scored 2) and stress (scored 2) that would yield a total score of 26. However, as in the case of a patient detained for 18 years with no adjudications or management problems, the clinical team may judge the individual as low risk. Due to the flexible nature of the HCR-20 as a SPJ approach, the experience of the clinical team may be exercised to make an appropriate final risk related judgement to inform a risk management plan.

There is a wealth of literature demonstrating the use of the HCR-20 in predicting violence relevant to civil, forensic and correctional populations (McNiel, Gregory, Lam Binder & Sullivan, 2003; Grevatt, Thomas-Peter, & Hughes, 2004; Doyle & Dolan, 2006). The tool has shown good inter-rater reliability (de Vogel, de Ruiter, Hildebrand, Bos, van de Ven, 2004; Dahle, 2006). Validity studies have included research of violent recidivism in discharged psychiatric patients (Dernevik, Grann, and Johannson, 2002), the prediction of intra-institutional violence in maximum-security correctional settings (Daffern, 2007; Belfrage, Fransson and Strand, 2000; McNeil and Binder, 1995; Nichols, Vincent, Whitemoor and Ogloff, 1999; Muller-Isberner, Sommer, Ozokayay and Freese, 1999) and further validated on various populations of disordered offenders in a variety of settings (Dernevik *et al.*, 2002; Douglas and Webster, 1999; Strand, Belfrage, Franson and Lavender, 1999).

2.5 Chapter Summary

It is apparent that there is a need for mental health professionals to demonstrate effective risk assessment techniques. The first two generations of risk assessment (clinical and actuarial approaches) lead to a third known as structured professional judgement. Risk decision-making schemes such as the HCR-20 and other SPJ methods adhere to evidence-based clinical practice, and facilitate a reciprocal process between clinicians and researchers. Webster and Hucker (2007) recently stated that two challenges exist. The first, '...to find out how best they (SPJ schemes) can be introduced to settings in such a way that they will be understood, accepted, and developed by clinicians', and the second, to 'verify and refine' the guidelines used in practice. Each of these challenges will be the focus of the

chapters that follow. The first challenge will be investigated via study of the process of implementation of a system of structured professional judgement to a high-secure forensic setting (Chapter Three), and perception of its clinical utility and practical application (Chapter Four). The second and third challenges will be investigated via studies to ascertain the predictive validity (Chapter Five) and the applicability of the system to the reduction and management of high-risk behaviour (Chapter Six). The empirical work presented in the subsequent chapters will attempt to clarify how a novel system of structured professional judgement may be implemented to address the needs of a high-secure forensic setting.

Chapter Three

Process of Implementation of a System of Structured Professional Judgement within a High Secure Hospital

3.1 Introduction and Context for Structuring Professional Judgements within a High Secure Hospital

The previous chapter established that literature, and practice guidelines indicate that the SPJ approach may lead to a more comprehensive review of risk factors, (when compared to clinical or actuarial methods). The work described below follows from a decision within a high secure forensic psychiatric hospital in the UK that a structured method of facilitating clinical team judgements of risk should be devised and implemented. The HCR-20, as an existing validated method of structuring clinical judgement, was chosen as a framework for clinical teams to rate specific areas of risk (Webster *et al.*, 1997).

Patient risk factors, and their utility for violence prediction have been established within the literature (see Chapter Five), yet the availability and application of clinically viable and efficient systems for making and documenting risk related decisions in response to the demands of a high-secure setting are limited. Webster and Hucker (2007) state that 'new research on implementation processes are now as much in need as are more studies of basic validity issues' (p.90). The focus of this chapter involves an investigation of the processes involved in the practical implementation of a structured risk assessment tool within a high secure forensic psychiatric setting to ensure that the system is used within clinical practice.

3.2 Setting, Admission Criteria and Patient Population

The current investigation was conducted within Rampton Hospital, Nottinghamshire Healthcare NHS Trust. Rampton Hospital is one of three high-secure special hospitals in England and Wales. The majority of patients are accepted following referrals from the Criminal Justice System (prison, secure hospitals and the courts). A hospital restriction order to a secure hospital may be imposed by the Crown Court under mental health legislation for England and Wales (Jamieson and Taylor, 2004). This process is actioned where an individual has committed an imprisonable offence and is deemed to present a significant risk to the public. As a consequence, the offender would be contained within a hospital (healthcare) setting rather than a prison establishment.

Patients detained at Rampton Hospital have the presence of a mental disorder as defined in the ICD-10 (International Classification of Mental and Behavioural Disorders) or DSM-IV-TR (Diagnostic and Statistical Manual of Mental Disorders). Patients between the ages of eighteen and sixty-five are detained under the Mental Health Act (1983) legal classification of Mental Disorder (according to section 1 of the Act). These include Mental Illness, Mental Impairment, Severe Mental Impairment or Psychopathic Disorder, often under more than one classification. The detention must be legitimised by the appropriateness of the mental disorder to the process of be subject to assessment and or treatment. In the presence of mental impairment or psychopathic disorder, detention under conditions of high security is only possible if the provision of treatment is anticipated to prevent a deterioration of their condition, or alleviate symptoms.

A further rationale for admission to a special hospital rests on the notion that the patients 'represent a grave and immediate danger to the public' or self, and therefore should be contained in high secure hospitals as they 'require treatment under conditions of high-security on account of their dangerous, violent or criminal propensities' (Mental Health Act, 1983). Due to the presence of immediate risk to others, regimes adhering to the highest level of security are appropriate to safeguard the public. The admission guidelines of Rampton Hospital state: 'It is an unacceptable infringement of a patient's rights to detain them in a higher level of security than they require'. The National Service Framework for Mental Health (Standard 5) similarly states that patients must be detained in an environment that is the least restrictive to ensure protection of the service user and the public.

The necessity to detain individuals within a high-secure hospital is therefore verified by the presence of a mental disorder. In addition, the presence of one or more types of behaviour must be present to categorise an individual as representing a grave and immediate risk. These behaviours include evidence of: (a) unprovoked or planned serious assaults on others (including other patients and staff in secure establishments that, if contained in a less-secure environment, may present management problems); (b) planned use of weapons (such as knives, firearms or explosives). Planning may warrant conditions of high-security, compared to opportunistic use which may require containment in conditions of less security; (c) threats, intimidation or aggression toward another. This may be apparent in a community or institutional setting warranting conditions of high security due to the risk of actual physical violence toward another that may result in injury or death; (d) serious sexual assault or sadistic behaviour (that could not be managed in a medium

secure single-sex unit); (e) arson (where supervision at medium secure units would not be adequate to protect risk of serious harm to others via fire setting); (f) drug or poison administration to others; (g) actual or attempted hostage-taking; (h) absconding or escape from secure institutions; (i) alcohol or drug use (if the risk of consumption is likely to result in the increased risk of harm to others. Admission to high-secure hospital is therefore reserved for patients for whom conditions of lesser security would not be adequate, as the risk of harm to others would be unacceptable.

3.2.1 Directorates

The hospital is comprised of five Directorates with a total population (at the time of writing) of n=345: The Peaks (or Dangerous and Severe Personality Disorder (DSPD), n=45); Personality Disorder (n=66); Mental Health (n=141); Learning Disability (n=44); and a service for Women (n=49). Each Directorate provides assessment, treatment, care and rehabilitation for its client group.

Each Directorate adheres to the Mental Health Act Code of Practice in providing a service to assess and treat patients with mental health needs (detained under the MHA, 1983). The Peaks Unit has admitted patients since March 2004. The service is one of four developed to contain patients thought to be dangerous and severely personality disordered. The remaining three sites are at Broadmoor High-Secure Hospital, HMP Whitemoor and HMP Frankland. The service was developed as part of the Government's strategy to manage and contain persistent sexual and violent crimes committed by individuals with a personality disorder who are an elevated risk for future offending. The Peaks Unit consists of seven wards; six providing treatment and one assessment. Patients are admitted if they fulfil the

following three criteria: present as posing a "risk of serious harm" (where it is judged that the victim would be unlikely to recover physically or psychologically); "severe disorder of personality" (defined by a score of over 30 on Hare's Psychopathy Checklist-Revised scale (PCL-R), or a score of between 25 and 29 on the PCL-R plus a personality disorder, not including anti-social personality disorder, or two or more personality disorders), and "a functional link between the two" (Daffern and Howells, 2007, p.139). The Personality Disorder Directorate (PD) comprises seven wards for men diagnosed as having personality disorder with diagnoses such as borderline, anti-social, schizoid, narcissistic and paranoid personality disorders. The Mental Health (MH) Directorate consists of ten wards; two admission; two treatment; one intensive unit; one high dependency villa; and one providing specialist psycho-social interventions. Clinical diagnoses of psychosis are generally consistent with the legal category of mental illness (Taylor, 1998). Diagnoses include schizophrenia, delusional and schizoaffective disorders. The Learning Disability (LD) Directorate provides a service for men with the presence of a learning disability and / or mental disorder. The Women's Service (WS) Directorate provides a (national) service to females requiring care within a high-secure setting. Treatment provision is given to female offenders with Mental Illness, Personality Disorder and Learning Disability and so encompasses all mental disorders.

3.3 Identification of Need for Risk Assessment within High Secure Hospitals

3.3.1 The Tilt Review of Security

The need for a clear system of risk assessment and management in high secure hospitals was identified following the 'Tilt' review of security and a number of high profile incidents (Tilt, Perry, Martin, Maguire & Preston, 2000). The outcome and conclusion of the Tilt report recommended an increased provision of therapy and activity for patients and an upgrading of physical security to safeguard the public, staff and patients across three high-secure hospitals in the UK.

The Tilt review of security was conducted following a recommendation from an earlier inquiry into serious allegations made by a former patient of the Personality Disorder Unit at Ashworth High Secure Hospital. Recommendation 7 of 89 made during the Ashworth Inquiry (Fallon, Blueglass & Edwards, 1999) suggested '...that an independent review of all aspects of physical security...' should be conducted. Sir Richard Tilt (former director of the English Prison Service) chaired a review team to conduct the investigation across all three high-security hospitals in England (Ashworth, Broadmoor and Rampton). The review emphasised physical and procedural security and provided recommendations for improvements related to security policies and practice in each of the three high secure hospitals (Exworthy and Gunn, 2003).

The Tilt review represented a challenge to balance the therapeutic and security needs of an offending population with complex needs. However, when the review was published, it was criticised by clinical professionals working within

forensic psychiatric hospitals. The review was seen to be ill-informed and imposing of a prison culture to security in a previously therapeutic environment. The report emphasised recommendations for increased physical security, including the construction of perimeter security, and access to patient areas via magnetic lock and key systems equivalent to that of a high-secure prison. The cost of the recommendations was £25 million, despite the fact that "...there have been no escapes (since 1994) or absconsions from 1997 onwards..." (Tilt *et al.*, 2000).

Despite a lack of supporting evidence, the review also recommended that "...the feasibility of locking rooms at night of all patients on admission and intensive care wards, and all 'high-risk' patients should be examined" (Tilt *et al.*, 2000). The potential implications of this recommendation were met with opposition as the review, in effect, suggested the locking of patients in their rooms overnight at a time when they were at their most vulnerable (when newly admitted or requiring intensive care). The recommendation could therefore be viewed as a potential destabiliser to the very behaviour that the review was attempting to minimise.

The report was also criticised for neglecting to address the relational security needs of high-secure hospitals. Exworthy and Gunn (2003) note, "In contrast (to physical and procedural security), relational security is scarcely mentioned in the entire report". Recommendations to increase resources and provisions to address the treatment and rehabilitation needs of patients at a humanistic (rather than punitive) level were therefore not addressed to the same extent as physical and procedural security. Recommendations from the Tilt review have nevertheless been implemented, and have impacted on the physical and procedural security within

high-secure hospitals, supplemented by attempts by clinical staff to ensure the provision of good clinical care and promotion of relational security.

In terms of improving procedural security, the review recommended '*that a procedure should be set up for the hospitals to identify "high risk" patients*'. Following the identification of such a population, provisions could be made relating to 'special procedural security arrangements for such "high risk" patients obviating the need for any extra strengthening of physical security' (p.16).

As a consequence of the Tilt review of security, a system to document risk decisions with particular reference to five defined factors was required. These factors relate to: (i) the immediate risk of harming others; (ii) the risk of suicide or self-harm; (iii) vulnerability to risk from others; (iv) the risk of escape; and (v) the risk of organised action in collaboration with others to subvert security and safety.

The need for a flexible, clinically viable risk assessment system to document risk related decisions within a high secure forensic service was therefore identified by the review. The importance of embedding the risk assessment and management processes as part of routine clinical care within the framework of clinical governance, multidisciplinary working and evidence-based practice was also highlighted. Rampton Hospital's Management Group decided that a risk assessment scheme to identify and manage patient risk as defined by the Tilt review should be developed as a priority, and that the system should be used routinely as part of ongoing practice by all clinical teams within the hospital. The HCR-20, as an existing validated risk assessment tool, was adapted (with the explicit consent of the

original authors) in an attempt to answer the five Tilt questions above. The scheme followed the SPJ approach, known as the Structured Clinical Judgement Risk Assessment Scheme (SCJ: Risk) and adopted an incremental development process. The system was first conceptualised, piloted and formally implemented, and entered a phase of maintenance between 2004 and 2008. The process was managed by the current author (described in detail below).

3.4 Materials

3.4.1 Structured Clinical Judgement: Risk Assessment Scheme (SCJ: Risk). Utilising an Existing Evidence Base of the HCR-20 to Structure Clinical Judgement

The SCJ: Risk scheme follows a format consistent with the HCR-20, with Tilt factors integrated within the document (Figure 3.1). By basing the additional factors within the existing framework of the HCR-20 as a validated tool, the activity of clinical teams ought to be informed by evidence-based practice. The SCJ: Risk factors were informed by clinical evidence in an attempt to facilitate clinical judgement in each of the areas of concern particular to a high secure hospital.

3.4.2 The SCJ: Risk

The method of structuring clinical judgements has been incorporated in the SCJ: Risk system. The SCJ: Risk contains the existing historical (H), clinical (C) and risk (R) factors from the HCR-20, but also contains three additional categories of risk (as defined by the Tilt review). The SCJ: Risk system therefore contains six clusters of judgements relating to risk. The SCJ: Risk document may be found in Appendix 1.1.

3.4.3 Construction of SCJ: Risk factors

The SCJ: Risk factors were informed by clinical evidence in an attempt to facilitate clinical judgement in each of the areas of concern particular to a high secure hospital. A panel of experienced forensic clinicians from the disciplines of psychiatry, psychology and security developed and agreed the additional factors of the SCJ: Risk. The present investigator was not involved in the construction of the SCJ: Risk document. Drafts of proposed risk factors were circulated among practitioners within the hospital to gauge their conceptual and operational utility. Clarification and refinement of item definitions on the basis of new clinical and empirical knowledge was achieved via a pilot of the use of the SCJ: Risk. The present investigator was not involved in the construction of the SCJ: Risk.

The item definitions were written in a way to reflect those of the HCR-20 in an attempt to operationalise the principles of risk assessment and management relevant to the needs of a high-secure hospital. In this way, it was hoped that professional consensus would be achieved by means of the construction of clearly articulated risk factors for assessing and managing patients who may be at risk of violence, self-harm/suicide, vulnerability, escape or subversion.

3.5 Additional Risk Factors of the SCJ: Risk

In addition to the historical, clinical and risk factors, the SCJ: Risk document incorporates three areas relating to: suicide and self-harm (**S**); vulnerability (**V**); and escape (**E**). The suicide/self-harm, vulnerability and escape/subversion items relate to the extent to which the identified factors have been present or absent 'currently and in the past three months' (Richardson and Hogue, 2006). The ratings relate to the extent to which suicide/self harm have been demonstrated (S); the extent to which an individual is vulnerable to risk of harm from others (V); and the possibility of the individual escaping absconding or acting in a subversive manner including taking a hostage (E). An additional ten items relevant to the setting of a high secure hospital were included in the historical section of the SCJ: Risk. The risk factors of the SCJ: Risk were written and coded in a way to reflect the HCR-20, indicating clinical opinion if the item is present (yes), absent (no), or partially present (maybe). A list of the original HCR-20 risk factors, and the additional risk factors of the SCJ: Risk is presented below in Figure 3.1. A summary of the risk factors and codings is presented in Table 3.1.

Figure 3.1. Content List for the HCR-20 and SCJ: Risk Prediction Tools

HCR-20[1] (V2) (Webster, Douglas, Eaves, & Hart, 1997)		SCJ: Risk[2] (Richardson and Hogue, 2006)	
H1	Previous violence	H1	Previous violence
H2	Young age at first violent incident	H2	Young age at first violent incident
H3	Relationship instability	H3	Relationship instability
H4	Employment problems	H4	Employment problems
H5	Substance misuse problems	H5	Substance misuse problems
H6	Major mental illness	H6	Major mental illness
H7	Psychopathy (PCL-R/PCL-SV)	H7	Psychopathy (PCL-R/PCL-SV)
H8	Early maladjustment	H8	Early maladjustment
H9	Personality disorder	H9	Personality disorder
H10	Prior supervision failure	H10	Prior supervision failure
		H11	**Child protection**
		H12	**Sex Offending**
		H13	**Suicide**
		H14	**Self-harm**
		H15	**Arson**
		H16	**Hostage taking**
		H17	**Weapons**
		H18	**Concerted indiscipline**
		H19	**High public or political interest**
		H20	**Escape / abscond history**
C1	Lack of insight	C1	Lack of insight
C2	Negative attitudes	C2	Negative attitudes
C3	Active symptoms of major mental Illness	C3	Active symptoms of major mental illness
C4	Impulsivity	C4	Impulsivity
C5	Unresponsive to treatment	C5	Unresponsive to treatment
		S1	**Frequency**
		S2	**Severity**
		S3	**Hopelessness**
		S4	**Planning**
		S5	**Suicidal ideation**
		V1	**Mental State**
		V2	**Physical/physiological problems**
		V3	**Psychological problems**
		V4	**Social problems**
		V5	**Exploitation**
		E1	**Planning**
		E2	**Incentive**
		E3	**Interest in security**
		E4	**Mental disorder**
		E5	**Subversive behaviour**
R1	Plans lack feasibility	**R1**	**Plans lack feasibility**
R2	Exposure to destabilsers	**R2**	**Exposure to destabilsers**
R3	Lack of personal support	**R3**	**Lack of personal support**
R4	Non-compliance with remediation attempts	**R4**	**Non-compliance with remediation attempts**
R5	Stress	**R5**	**Stress**

[1] H1-10 relate to history, C1-5 to clinical and R1-5 to risk.
[2] H1-20 relate to history, C1-5 to clinical, S 1-5 to suicide or self-harm, V 1-5 to vulnerability, E 1-5 to escape and subversion, R 1-5 to risk management
SOURCE: Adapted from Webster, Douglas, Eaves, & Hart (1997). Used with permission from the authors.

Table 3.1. Risk Item Definitions and Scoring Criteria for the HCR-20 and SCJ: Risk

ITEM	RISK FACTOR and DESCRIPTOR	SCORING CRITERIA
H1-10	**HISTORICAL (H) SCALE**	
H1	**PREVIOUS VIOLENCE** Refers to the density and/or severity of past violence, including all violence up to the assessment	**NO** - No previous acts of violence **MAYBE** - Possible/less serious violence (1-2 acts; moderate severity) **YES** - Definite/serious violence (3+ acts; any severe violence)
H2	**YOUNG AGE AT FIRST VIOLENT INCIDENT** The younger the age at first known violent incident, the higher the risk	**NO** - 40 years and older **MAYBE** - Between 20 and 39 **YES** – Under 20
H3	**RELATIONSHIP INSTABILITY** The ability to form and maintain long-term, stable intimate relationships	**NO** - Relatively stable/conflict-free relationship pattern **MAYBE** - Possible/less serious unstable or conflictual pattern **YES** - Definite/serious unstable or conflictual pattern
H4	**EMPLOYMENT PROBLEMS** Problems related to seeking and maintaining ongoing employment	**NO** - No employment problems **MAYBE** - Possible/less serious employment problems **YES** - Definite/serious employment problems
H5	**SUBSTANCE USE PROBLEMS** Use of substances that produces dysfunction in major life domains, such as health, employment, recreation, or interpersonal relations	**NO** - No substance use problems **MAYBE** - Possible/less serious substance use problems **YES** - Definite/serious substance use problems
H6	**MAJOR MENTAL ILLNESS** Applies to illnesses involving disturbances of thought and affect (i.e., psychotic illnesses; major mood disorders; organic disorders; retardation)	**NO** – Less serious mental illnesses, such as anxiety disorders, somatoform or sleep disorders **MAYBE** - Evidence of major mental illness is unequivocal. **YES** - Evidence is equivocal (e.g., course or severity is unclear)
H7	**PSYCHOPATHY** The presence of severe psychopathic personality traits (arrogant, deceitful interpersonal style; deficits in remorse and empathy; impulsive and irresponsible behavior). Rating is to be made on the basis of an informed and trained psychopathy assessment using the PCL-R or PCL:SV	**NO** – Nonpsychopathic (0-19 on PCL-R; 0-12 on PCL:SV) **MAYBE** - Possible/less psychopathy (20-29 on PCL-R; 13-17 on PCL:SV) **YES** - Definite/serious psychopathy (30-40 on PCL-R; 18-24 on PCL:SV)
H8	**EARLY MALADJUSTMENT** Maladjustment at home, school, or the community before the age of 17, includes both victimization and victimizing	**NO** - No maladjustment **MAYBE** - Possible/less serious maladjustment **YES** - Definite/serious maladjustment
H9	**PERSONALITY DISORDER** The presence, at any time, of any personality disorder, as defined by some official nosological system (DSM; ICD)	**NO** - No personality disorder **MAYBE** - Possible/less serious personality disorder **YES** - Definite/serious personality disorder
H10	**PRIOR SUPERVISION FAILURE** Failure while under any supervision by correctional, mental health, court, or forensic authority	**NO** - No supervision failure(s) **MAYBE** - Possible/less serious supervision failure(s) **YES** - Definite/serious supervision failure(s)

C1-5	CLINICAL (C) SCALE (of the HCR-20)	
C1	**LACK OF INSIGHT** Failure to acknowledge or understand one's mental disorder, need for treatment, proneness to violence	**NO** - No lack of insight **MAYBE** - Possible/less serious lack of insight Definite/serious lack of insight
C2	**NEGATIVE ATTITUDES** Presence of entrenched pro-criminal/antisocial attitudes or beliefs	**NO** - No negative attitudes **MAYBE** - Possible/less serious negative attitudes **YES** - Definite/serious negative attitudes
C3	**ACTIVE SYMPTOMS OF MAJOR MENTAL ILLNESS** Presence of "disturbances in content and form of thought, inappropriate affect, perceptual disturbances, hallucinations, delusions" according to official nosological system such as the DSM-IV or ICD-10 for definitions of psychotic symptoms.	**NO** - No active symptoms of major mental illness **MAYBE** - Possible/less serious active symptoms of major mental illness **YES** - Definite/serious active symptoms of major mental illness
C4	**IMPULSIVITY** Affective, behavioral, or cognitive instability; the inability to remain composed and directed when under the pressure to act	**NO** - No impulsivity **MAYBE** - Possible/less serious impulsivity **YES** - Definite/serious impulsivity
C5	**UNRESPONSIVE TO TREATMENT** Poor response to current "treatment designed to ameliorate criminal, psychiatric, psychological, social, or vocational problems	**NO**- Responsive to treatment **MAYBE** - Possible/less serious unresponsiveness to treatment **YES** - Definite/serious unresponsiveness to treatment

R1-5	RISK MANAGEMENT SCALE (R)	
R1	**PLANS LACK FEASIBILITY** Given a patient's risk level, risk factors, and treatment needs, a judgement is made regarding the attainability and presence of an individualized plan	**NO** - Low probability that plans will not succeed **MAYBE** - Moderate probability that plans will not succeed **YES** – High probability that plans will not succeed
R2	**EXPOSURE TO DESTABILIZERS** The presence of idiosyncratic, "hazardous conditions" that are likely to trigger violent episodes, relapse, or lack of professional supervision	**NO** - Low probability of exposure to destabilizers **MAYBE** - Moderate probability of exposure to destabilizers **YES** – High probability of exposure to destabilizers
R3	**LACK OF PERSONAL SUPPORT** The absence of patient, tolerant, and encouraging relatives and peers; poor family and peer relations	**NO** - Low probability of lack of personal support **MAYBE** - Moderate probability of lack of personal support **YES** – High probability of lack of personal support
R4	**NONCOMPLIANCE WITH REMEDIATION ATTEMPTS** Probability that an individual will not comply with therapeutic, medication, supervision, or management plans	**NO** - Low probability of noncompliance with remediation **MAYBE** - Moderate probability of noncompliance with remediation **YES** – High probability of noncompliance with remediation
R5	**STRESS** The presence of either significant psychosocial stressors, or anticipation of poor coping in response to less serious stressors	**NO** - Low probability of stress **MAYBE** - Moderate probability of stress **YES** – High probability of stress

H11-20	**ADDITIONAL HISTORICAL SCALE OF THE SCJ: RISK (H11-20)** Risk factors thought to be of relevance to a high-secure health setting	
H11	**CHILD PROTECTION** Refers to the extent to which child protection issues are relevant in the case	**NO** - No previous harmful behaviour proven to be distressing to children. **MAYBE** - Concerns or unsubstantiated evidence. **YES** – Clear evidence of previous harmful behaviour to children
H12	**SEX OFFENDING** History of sexual offending or sexually motivated violence	**NO** – No known evidence **MAYBE** - Concerns or unsubstantiated evidence/information **YES** – Clear evidence/information that they have sexually offended
H13	**SUICIDE ATTEMPT** Indicates the extent to which there is a history of previous suicide attempts or concerns	**NO** - No known evidence of suicidal attempts / concerns **MAYBE** - Some indication / concern - could include self-statements with no corroborative evidence **YES** – Evidence/information that suggests a past history of suicidal attempts
H14	**SELF-HARM** Relates to the extent that the individual has a history of self-harm – which may or may not include suicide attempts	**NO** - No known evidence of self-harm attempts / concerns **MAYBE** - Some indication / concern - could include self-statements with no corroborative evidence **YES** – Evidence/information that suggests a past history of self-harm attempts
H15	**ARSON** The extent to which there evidence / information indicates that indicates a past history of, or concerns relating to arson	**NO** - No – no known evidence of arson **MAYBE** - Concerns with no substantiated evidence available or is under investigation **YES** – Evidence/information available that suggests past history or conviction for arson
H16	**HOSTAGE TAKING** Indicates the extent to which the individual has been involved in a hostage situation, attempt or planning	**NO** – No known evidence of hostage taking **MAYBE** - Unsubstantiated evidence or expressed expressed wish or threat to take hostages **YES** – Clear evidence that they have been involved in hostage taking.
H17	**WEAPONS** Relates to the extent to which the individual has previously used a weapon	**NO** – No known weapon use **MAYBE** - Possible past weapon use - possibly unconfirmed **YES** – Clear evidence of past weapon usage.
H18	**CONCERTED INDISCIPLINE** Indicates the extent to which there are concerns that the individual would act, possibly with others, to cause acts of indiscipline.	**NO** - No known evidence **MAYBE** - Some indication, makes threats or possible collusion with others **YES** – Evidence/information of previous involvement or planning of indiscipline
H19	**HIGH PUBLIC OR POLITICAL INTEREST** Indicates the extent to which there is public interest in the individual or the case	**NO** - No press or public interest in the case **MAYBE** - Some localized public / press interest in the case **YES** – High national press / public interest in the case
H20	**ESCAPE/ABSCOND HISTORY** Refers to attempted or successful escape or abscond history	**NO** - No evidence to escape/abscond **MAYBE** - Some evidence/suspicion that the patient has absconded/planned escape/abscond **YES** – Clear evidence of previously escape/abscond

S1-5	**SUICIDE/SELF-HARM (S) SCALE** (specific to the SCJ: Risk)	
S1	**FREQUENCY** Relates to the frequency of recent suicide / self-harm attempts	**NO** - No increase in frequency in self harming behaviour **MAYBE** - Possible/less serious increase **YES** – Score would be given to demonstrate a definite increase in frequency
S2	**SEVERITY** Indicates the extent to which the episodes of self-harm have been potentially life-threatening	**NO** - No self-harming behaviour **MAYBE** - Possible/less serious attempts not thought life threatening **YES** - Self-harming behaviour considered life threatening
S3	**HOPELESSNESS** Indicates the extent to which there is clinical evidence of hopelessness being expressed by the patient	**NO** - No evidence of hopelessness **MAYBE** - Some / possible evidence of hopelessness **YES** - Clinical evidence of hopelessness being expressed / observed
S4	**PLANNING** Indicates the extent to which the individual is considered to be making plans to commit suicide or undertake self-harm	**NO** - No evidence of planning **MAYBE** - Some / possible evidence of planning **YES** - Evidence of planning a suicide / self-harm attempt
S5	**SUICIDAL IDEATION** Indicates the extent to which the individual is thought to have suicidal ideation	**NO** – No evidence of suicidal ideation **MAYBE** - Some evidence of suicidal ideation **YES** - Clear evidence of suicidal ideation

V1-5	**VULNERABILITY (V) SCALE** (specific to the SCJ: Risk)	
V1	**MENTAL STATE** Vulnerability in this area relates to the mental state of the individual making them vulnerable to being victimized by others	**NO** – No evidence of mental state potentially resulting in victimization **MAYBE** - Some / possible evidence of mental state impacting on victimization **YES** - Evidence of vulnerability of mental state resulting in victimization from others
V2	**PHYSICAL/PHYSIOLOGICAL PROBLEMS** Indicates the extent to which physiological / physiological problems make them vulnerable to victimization and bullying from others	**NO** - No of physical/ physiological problems **MAYBE** - Some evidence of physical/ physiological problems **YES** - Evidence of victimization as a result of physical/ physiological problems
V3	**PSYCHOLOGICAL PROBLEMS** Indicates the extent to which the individual's psychological functioning may make them vulnerable to victimization from others	**NO** - No evidence of presence of psychological problems **MAYBE** - Some evidence of psychological problems **YES** - Evidence of presence of psychological problems that may impact on vulnerability
V4	**SOCIAL PROBLEMS** Indicates the extent to which social problems and external stressors may contribute to being more vulnerable	**NO** - No evidence of social problems / external stressors **MAYBE** - Some evidence of social problems / stressors **YES** - Evidence of social problems / external stressors contributing to individual's vulnerability
V5	**EXPLOITATION** Indicates the extent to which the individual is considered to be vulnerable to being exploited by others	**NO** - No evidence of vulnerability to exploitation **MAYBE** - Some evidence of vulnerability to exploitation **YES** - Evidence of individual being vulnerable to exploitation from others

E1-5	**ESCAPE/ABSCOND (E) SCALE** (specific to the SCJ: Risk)	
E1	**PLANNING** Indicates the extent to which there is information and evidence to suggest that the individual is planning or has planned an escape during the past 3 months	**NO** - No known evidence of escape / planning **MAYBE** - Some evidence / suspicion of escape attempt **YES** - Evidence that they are planning an escape attempt
E2	**INCENTIVE** Indicates the extent to which external incidents, events or stressors may increase the individual's desire to escape during the past three months	**NO** - No evidence of incentive impacting upon desire to escape **MAYBE** - Some evidence / suspicion of incentive **YES** - Evidence of increased incentive to escape
E3	**INTEREST IN SECURITY** Indicates the extent to which the individual has shown a noticeably increased interest in security issues during the past three months	**NO** - No evidence **MAYBE** - Some evidence of increased interest in security **YES** - Evidence / suspicion of increased interest in security
E4	**MENTAL DISORDER** Indicates the extent to which the individual's mental disorder may have had an impact on their desire to escape during the past three months	**NO** - No impact on escape likelihood **MAYBE** - Some indication of increased likelihood of escape **YES** - Definite indication that mental disorder increases likelihood of escape
E5	**SUBVERSIVE BEHAVIOUR** Indicates the extent to which the individual has shown a indications of subversive behaviour during the past three months	**NO** - No evidence **MAYBE** - Some indication / unsubstantiated indication of subversive behaviour **YES** - Evidence of subversive behaviour

RM1-5	**The RISK MANAGEMENT SCALE of the HCR-20 are reconsidered for a future scenario planning for an event requiring a management plan for containment outside the normal constraints of a high-secure hospital (e.g. move to a medium secure unit, hospital visit)**	

HRS	**HIGH RISK SUMMARY JUDGEMENT (Tilt factors)**	**Review of factors:**
	High risk of immediate harm	H1-H20,C1-C5 & R1-R5
	High risk of harm to self	S1-S5, H3, H5, H6, H8, H9, H13, H14, H15, H17, C1-C5 & R1-R5
	High risk of vulnerability	V1-V5, H1, H3, H4, H5, H6, H8, H9, H13, H14, H17, C1-C5 & R1-R5
	High risk of escape	E1-E5, H10, H16, H18, H19, H20, C1-C5 & R1-R5
	High risk to subvert security and safety	H1-H20, C1-C5 & R1-R5

3.5.1 Risk Scenario Planning

The SCJ: Risk also incorporates a Risk Scenario Planning Section. Bjorkly (1995) asserts 'assessment of risk situations in a patient, combined with estimates of the likelihood that the patient will be exposed to such situations, are crucial elements in the development of improved prediction instruments and violence prevention' (p.479). As such, a risk scenario planning section is incorporated within the SCJ: Risk. This allows clinical teams to make a judgement relating to a suggested care plan and associated risks and the likely response of the individual. In this way multidisciplinary team members may discuss and document how an individual patient may react to future circumstances (e.g. medium secure setting, low secure or community setting, ground privileges, escorted visits, compliance to medication). This portion of the document allows for a structured judgement considering relevant risk factors and protective/mediating factors (aspects of an individual's behaviour that may inhibit the likelihood of future offending) (RMA, 2007).

A further recommendation of the Tilt review of security, was that 'hospitals should further develop arrangements which enable patients to progress from more secure to less secure environments within the hospitals, with increasing privileges, as part of their therapeutic plan' (Tilt *et at*, 2000, paragraph 7.6, p17). Rampton Hospital contains both secure 'main building' wards, and 'villa' locations, each characterised by different levels of security. The risk scenario planning section allows clinical teams to consider risk factors related to a less (or more) secure ward to encourage progression from the controlled environment of high security to lower security via discussion of clinical and security issues.

The use of risk scenario planning allows different outcome judgements to be made. Consideration of possible environmental variables may therefore impact on the final risk rating. The SCJ: Risk system recognises the dynamic nature of risk, and that the same presentation may result in a different judgement relating to risk dependent on varying conditions. It is important that the conditions and future circumstances are specified and understood before a risk decision is made. The dynamic nature of these judgements also impacts on the rate of frequency of discussions, and it is important that that the risk assessment process is reviewed at regular intervals, and if conditions or circumstances change. For example, an individual may be considered a low risk dependent upon adherence to a risk management strategy, or care plan. The same individual may pose a high risk in the absence of risk management strategies tailored to their individual need (e.g. failure to comply with medication, leading to paranoid ideation which may impact upon escape/abscond risk). In this way '...treatment and management planning can then be organised specifically to disconfirm the decision of high risk' (p. 157, Douglas and Webster, 1999). Adherence to the flexible method of structured clinical judgement therefore allows the identification of risk factors to inform a risk management strategy for a number of specified conditions.

3.5.2 Tilt High Risk Summary

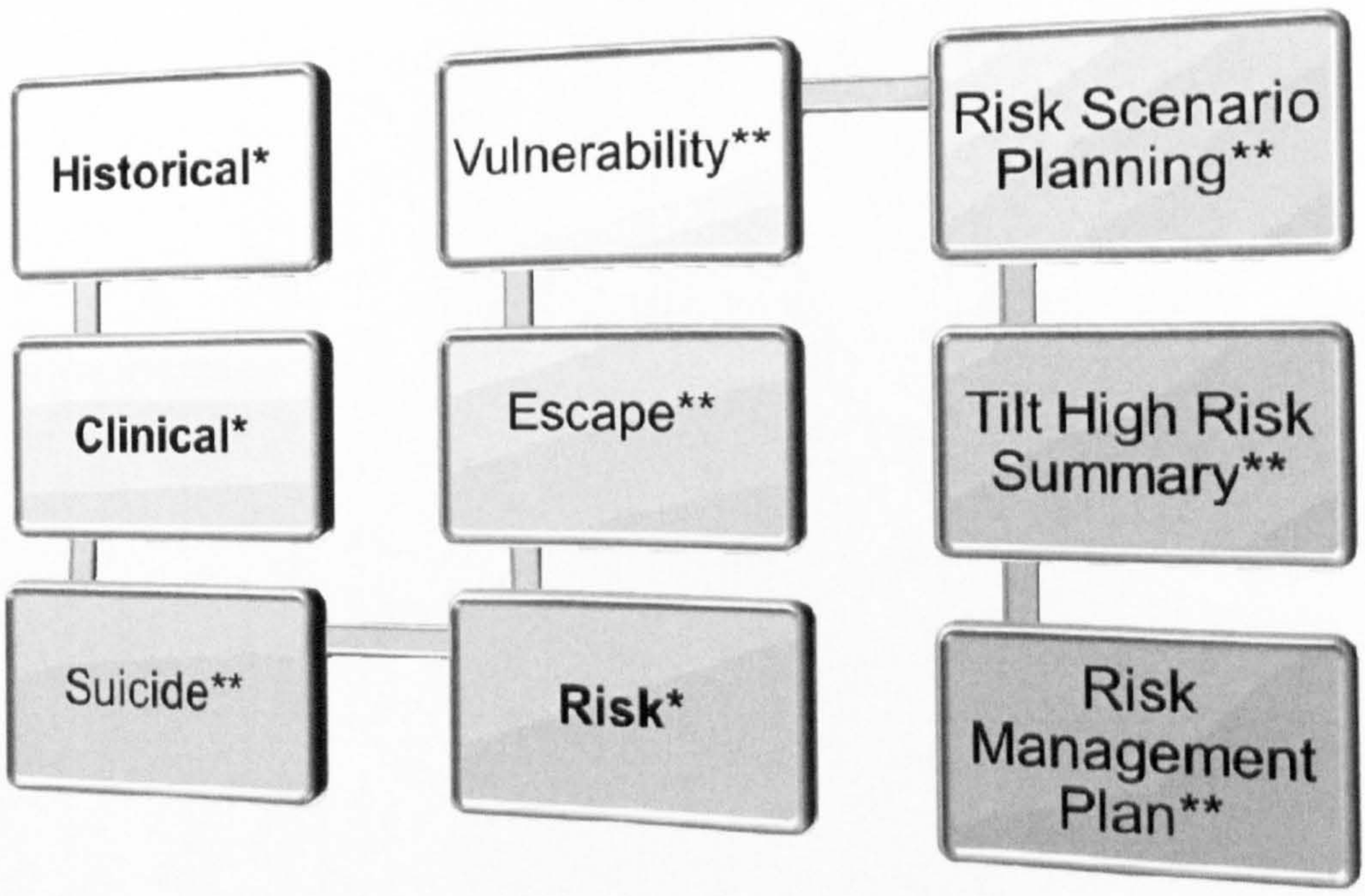
A Tilt High Risk Summary judgement is made in accordance with the five defined Tilt objectives as to the extent to which the individual presents a high risk. An evidenced judgement is then made on the basis of review of relevant risk and protective factors for the individual to assess if the patient presents as high risk in one or more of the areas of concern defined by the Tilt directive.

3.5.3 Risk Management Plans

A summary of risk is presented at the end of the SCJ: Risk document to record the overall level of risk and appropriate risk management strategies. This portion of the SCJ: Risk 'provides information about how, conceivably, violence and other risks may be contained. It deals with the kinds of supervision, interventions, and treatments that are apparently required in the particular case in order to minimise violence risk', and other behaviours relevant to a high-secure hospital (Webster *et al.*, 2007, p.16). A care plan is then documented detailing how each individual area of high risk should be managed. This summary provides the basis of subsequent risk review judgements. A signature portion as part of the summary provides agreement that the risk assessment and management judgement was conducted in a multidisciplinary manner. The inclusion of risk management plans for each area of high risk identified is consistent with the trend in the literature to move away from attempts to predict behaviours, toward the management of high-risk behaviour and a prevention based paradigm of risk assessment (Macpherson and Kevan, 2004). These themes are explored further in Chapters Five and Six.

The Structured Clinical Judgement of Risk (SCJ: Risk) System has therefore been developed and implemented to assist clinical teams make risk related judgements and management plans for patients within a high-secure hospital detained under the Mental Health Act (Richardson and Hogue 2006), and to promote the transparency of decision making within the framework of clinical governance. The process of completion of the SCJ: Risk is demonstrated in Figure 3.2.

Figure 3.2. Diagram to Illustrate the Process of Completion of the SCJ: Risk System.



*HCR-20 items used with the permission of the authors
**Additional risk subscales of the SCJ: Risk

3.6 Application of the SCJ: Risk Process to Established Patient Review Forums

In addition to assessment and treatment, each Directorate within Rampton Hospital considers and reviews each patient at intervals. This process may be facilitated by the Care Programme Approach (CPA) and Mental Health Review Tribunal hearings (MHRTs). The SCJ: Risk was applied to each Directorate and has been used to inform such reviews. The SCJ: Risk is reviewed annually (as a minimum) and is integrated within the hospital's CPA meetings, which is a clinical forum to discuss, construct and monitor a patient's progress and clinical management strategy. Application of the SCJ: Risk is repeated for subsequent CPA meetings to allow for review of progress in treatment within a multidisciplinary forum (see method below for further clarification as to the processes of implementation).

The SCJ: Risk process may also be used to prepare a defendable judgement for MHRTs (held every three years). The MHRT forum is a process by which an individual may be considered for transfer to conditions of lesser security to absolute discharge. Transfer of discharge is conditional on the permission by the Secretary of State (Jamieson and Taylor, 2004). This process is informed by the MHRT and discharge may be absolute (requiring no further legal sanction of detainment or supervision), or conditional (where conditions of supervision in the community are required to be satisfied) until a patient can be absolutely discharged.

A more common outcome of MHRTs at Rampton Hospital is the consideration of transfer to conditions of lesser security (by move to a medium secure unit). Portions of the SCJ: Risk were designed to evidence consideration by

the clinical team to the appropriateness of such a move (by consideration of salient risk factors and the Risk Scenario Planning Section). Via discussion and review of relevant portions of the document, a patient's risk(s) within conditions of a medium secure unit may be considered to assess the viability and likelihood of significance of risk to others outside the regime of a high-secure setting. In this way, monitoring may be achieved to ensure that a patient is not contained unnecessarily in conditions of security that are elevated beyond the risks posed, thus allowing consideration of viability of a safe move to less secure settings. Facilitation of change and progress of patients by appropriate and efficient allocation of resources, risk management planning and discharge preparation was therefore dependent upon the successful implementation of the SCJ: Risk.

The aim of the current chapter was an investigation of the process of implementation of the SCJ: Risk. The process of implementation was monitored by evaluation at regular intervals of levels of compliance (i.e. actual applied use) of the system in practice. Introduction of a risk assessment tool to address the security questions relevant to a high secure forensic hospital and subsequent monitoring of compliance of the use of the system were the primary operational/organisational objectives of the investigation. As a result of operational objectives, a need to evidence and validate the system in an academic manner was identified. Concerted effort to successfully implement the SCJ: Risk system within the high secure forensic hospital allowed an identification and understanding of the steps needed to establish compliance in the use of the system. Only after this was achieved was an academic evaluation of the system's, clinical utility and usability (Chapter Four), predictive validity (Chapter Five) and impact upon the management of risk (Chapter Six)

possible to answer the research questions defined in this thesis by conduct of empirical investigations.

3.7 Process of Implementation of a System of Structured Professional Judgement within a High-Secure Hospital

3.7.1 Aims and Objectives

The aim of the present chapter was to understand the processes necessary to successfully implement a system of structured professional judgement (the SCJ: Risk as an adaptation of the HCR-20) within a high-secure forensic setting to fulfil the security objectives of the Tilt review to assist clinical teams make and document risk-related decisions to inform the management of patients.

3.7.3 Research Questions

Was a system of structured professional judgement (SPJ) successfully implemented (do clinical teams employ SPJ methods as part of ongoing clinical practice)?

What processes are necessary to inform the successful implementation of a system of structured professional judgement?

3.7.2 Hypotheses

It was anticipated that the success of the implementation process of the SCJ: Risk would be reflected by compliance in use of the system, and that use of the system in practice would vary between clinical teams. Overall, it was expected that there would initially be resistance to use and implementation of the system, but that

due to hospital directives, all clinical teams would have implemented the system for the majority of their patients by December 2006 (a deadline given from the Chief Executive, externally audited where Responsible Medical Officers (Consultant Psychiatrist) would be held accountable for failure to comply).

HA_0: Compliance in use of the system of structured professional judgement (SCJ: Risk) will not be demonstrated.

HA_1: Compliance in use of the system of structured professional judgement (SCJ: Risk) will be demonstrated.

3.7.4 Method

3.7.4.1 Process of implementation

The process of implementation of the SCJ: Risk began in June 2004. A pilot phase was conducted within nine clinical teams across three Directorates (Learning Disability, 5 teams, Personality Disorder, 1 team, Mental Health, 3 teams) between June 2004 and August 2005. The remaining Directorates within the hospital (The Peaks Unit and Women's Service) implemented the SCJ: Risk as part of clinical practice between September 2005 and December 2006.

The process of completion of the SCJ: Risk followed the procedure described below. By following the procedure, clinical teams have successfully implemented the scheme to inform risk-related multidisciplinary discussions. The scheme has therefore formed a significant component of the comprehensive extended assessment of a patient population for all patients within Rampton high-secure hospital since December 2006.

3.7.5 Procedure

3.7.5.1 Participants – Staff

SCJ: Risk documentation was completed within a multidisciplinary clinical team forum. Relevant members comprised a Responsible Medical Officers (RMO), Psychologists, Social Workers, Occupational Therapists, Ward Managers, Team Leaders, Security Liaison and Named Nurses. The RMO fulfilled the role of Case Manager and had sufficient authority and responsibility for the co-ordination and maintenance of the SCJ: Risk including Tilt High Risk Summaries and associated Risk Management Plans. The Case Manager held responsibility for communicating, and recording and validating information regarding the risk related judgements. Clear definition of MDT roles and responsibilities was integral to the success of the implementation of the SCJ: Risk system.

In a similar way, the recruitment of staff that could be utilised as a resource to clinical teams was considered essential to the large scale implementation of the SCJ: Risk. The absence of a support to assist clinical teams was anticipated as a barrier to the success of the project. Clarity and communication of roles within the SCJ: Risk team was also necessary. The SCJ: Risk team comprised a Project Lead (and Chair of the steering group), a Project Manager (the current author), two Research Assistants, and a Project Consultant. In addition, a Directorate Representative liaised between the SCJ: Risk team and Case Managers to ensure operational objectives relating to the implementation were achieved. This model ensured an effective channel of communication between the managerial decisions, SCJ: Team, and clinical teams using the system.

A critical component to the implementation of the SCJ: Risk was the provision of training. All staff members from each clinical team attended training to fulfil learning objectives related to understanding of the theory and approaches to risk assessment and management, standardised risk assessment tools, and the HCR-20. Clinical teams were also informed of the security requirements of a high-secure hospital and the SCJ: Risk and its use in clinical practice. A standardised approach and evaluation of training and learning objectives facilitated the understanding and consistency of use of the SCJ: Risk across clinical teams.

Completion of the Historical portion of the document was identified as a time and resource-intensive task. During the initial phases of the implementation process (September 2005 to December 2006) a relevantly trained postgraduate assistant psychologist (in addition to the team indicated above) was therefore recruited to collate and code the Historical portion of the SCJ: Risk in advance of clinical team risk discussions. In this way, a standardised approach to coding Historical variables was achieved via background information searches of a range of existing hospital records. This information was then communicated by a research assistant and ratified by each clinical team at the initial SCJ: Risk discussion. Consideration by the clinical team of the quality and reliability of information and input of additional relevant information was critical to gaining a reliable and valid understanding of the static factors relating to an offender's history (RMA, 2007).

The validity of risk related decisions was an anticipated problem during the implementation stage. Facilitation of initial SCJ: Risk discussions (by SCJ: Risk team members) were seen as a necessary and integral aspect of ongoing training.

The SCJ: Risk team's presence on the wards early in the implementation phase was an attempt towards harnessing the skills of the team and monitoring the process of making and documenting risk-related judgements. In this way, compliance and integrity of the use of the system were monitored. The research assistants and project manager within the SCJ: Risk team fulfilled the role as consultants to clinical teams and advised the process of how to complete the remaining dynamic variables, high risk summary, and risk management sections of the document. The process of structuring clinical judgement involved '...the use of validated, empirically grounded, risk assessment tools or guidelines to structure information in an evidence based systematic way to assess, formulate, and manage risk...based on professional experience, training, decision making and knowledge' was therefore implemented within the service (RMA, 2007).

The development and implementation of the SCJ: Risk benefited from organisational support and was governed by a steering group comprised of senior management, Directorate representatives and a designated SCJ: Risk Manager (current author) whose responsibilities included delivery of operational objectives and ongoing evaluation of the system of SPJ. Support from such groups and senior management was critical to overcoming occasional resistance to implementation of the SCJ: Risk as a standardised risk assessment tool.

The timely and accurate recording of risk decisions was anticipated as a potential problem of the implementation of the system. The Department of Health Guidelines (2007) stipulated that 'all risk-related decisions should be recorded, signed and dated in suitable documentation'. The SCJ: Risk system was therefore

developed to include recording of information within a computerised system. Following clinical team discussions, a RMO's Personal Assistant was responsible for entering SCJ: Risk judgements into a computerised interface (via an access database, see Appendix 1.2). Each clinical team member directly involved in the patient's care then had a responsibility to access the recorded risk-related judgements and contribute to the recorded risk management of each individual. The Case Manager (RMO) had the additional responsibility of validating the document via the computerised interface. Monitoring of compliance in use of the system was achieved by generating outputs from the computerised system, which were reported back to Directorate Representatives by the SCJ: Risk Manager at a monthly steering group meeting. The SCJ: Risk assessment system was therefore embedded in current practice, and so was subject to monthly audit within the framework of clinical governance. The use of the audit process facilitated monitoring of compliance to and integrity of use of the system to ensure that the risk assessment tool is used to document Tilt security factors in a multidisciplinary forum in accordance within the hospital's risk assessment policy.

3.8 Results

3.8.1 Compliance in Use of the System of Structured Professional Judgement (SCJ: Risk System)

Compliance in use of the SCJ: Risk system, as part of ongoing clinical practice, rose steadily since auditing began in September 2006. Table A1 (Appendix 1.3) and Figures A1 to A6 (Appendix 1.4) illustrates the increase of use between and within Directorates over a twenty-three month period.

Six months prior to deadline for implementation of the SCJ: Risk system (01/07/2006 to 31/12/2006), compliance rates rose across all Directorates of the hospital. Proportions of completions rose from forty-four per cent in September 2006 (*n*=120) to eighty-seven per cent in December 2006 (*n*=348). At the first time period of investigation (01/09/06), the following Directorates had implemented the system: DSPD (83%, *n*=29); PD (16%, *n*=13); MH (23%, *n*=35); LD (84%, *n*=37) and WS (14%, *n*=6). At the time of the implementation deadline (31/12/07), most clinical teams had implemented the system for a high proportion of their population: DSPD (83%, *n*=42); PD (87%, *n*=71); MH (94%, *n*=147); LD (73%, *n*=48) and WS (98%, *n*=40).

During the six months following the implementation deadline (01.01.2007 to 30.06.2007), a further rise of the use of the system in clinical practice was observed, and all Directorates achieved one hundred per cent compliance levels in completion of SCJ: Risk documentation between the months of March and May 2008. The successful implementation of the system was therefore demonstrated. The compliance figures demonstrate that clinical teams currently employ the SCJ: Risk routinely within clinical practice.

3.9 Discussion

3.9.1 Interpretation of Findings and Proposed Steps for Future Implementation in Other Forensic Settings

The current chapter investigated the necessary processes to achieve successful implementation of the SCJ: Risk system within a high-secure forensic setting. The findings demonstrated that successful implementation was achieved, demonstrated by compliance of use. Rates of compliance varied between Directorates. Clinical teams within DSPD and Learning Disability Directorates implemented the system readily since the start of the implementation phase, well before the formal deadline (the latter Directorate perhaps due to their familiarity with the system due to participation in the pilot phase). Personality Disorder, Mental Health and Women's Services were slower to implement the system as part of ongoing clinical practice. Four Directorates achieved good levels of use of the system at the time of the implementation deadline. However Women's Service completed a low proportion of use, completing SCJ: Risk documentation for thirty per cent of its patients at this time. Upon closer examination of the figures, this was due to one Responsible Medical Officer failing to implement the system for any of their patients.

Two explanations of compliance to the use of the SCJ: Risk in clinical practice may be proposed. The first explanation could be that the imposition of a formal deadline by senior management was a catalyst for completion of documentation for the majority of patients within each Directorate. Responsible Medical Officers were aware that compliance would be audited and communicated to

senior management and that they would be held accountable for failure to complete documentation by the end of December 2008. The second explanation may be that the process of implementation described above has been beneficial to assisting clinical teams to make and document risk-related decisions for a good proportion of patients detained at Rampton hospital. This assertion is developed by the investigation presented in Chapter Four, where clinical team members' attitudes to the process of implementation in relation to the clinical utility (usability) of the system are scrutinised.

A number of procedures were essential to the process of successful implementation of the SCJ: Risk within a special hospital. The procedure adopted in the current investigation has direct relevance to other institutions and settings wishing to introduce a system of structured professional judgement to ongoing clinical practice within other multidisciplinary forums. As a result of the investigation of the process of implementation the following stages are recommended for practitioners wishing to implement a system of risk assessment in the future: (i) Initial pilot and evaluation phase (to identify initial problems and identify solutions); (ii) training (to equip users with an understanding of the system, empirical and theoretical underpinning and operational requirements); (iii) clear procedures (communicated to MDT members during training and via ongoing support and guidelines in the form of a resource pack/manual on each ward location); (iv) communication of MDT roles and responsibilities, and the responsibilities of support staff; allocation of additional resources (via recruitment of project staff and nomination of a liaison link from each Directorate); (v) managerial support (regular steering group meetings); (vi) a computerised system to assist documentation of risk

related decisions and (vii) audit of compliance of use to the system and ongoing evaluation of the system of structured professional judgement.

Caution must be exercised and attention given to Webster and Hucker's (2007) assertion that: 'Even when success has been achieved in the implementation phase, much effort is required to ensure continued fidelity to the protocol. 'Drift' away from the published guide will occur without constant vigilance' (p.90). It is for this reason that rigorous ongoing evaluation of the system will be essential to the system's maintenance phase, including monitoring of the regularity of use within clinical practice. In terms of maintaining acceptable routine use of the system, it is anticipated that clinical team members will require refresher training, support from a knowledgeable team, and feedback as part of the ongoing evaluation. This will ensure consistency of use and the communication of current knowledge into clinical practice. In addition, it is anticipated that compliance to the system should be monitored by a Hospital Audit Team, external to the original SCJ: Risk team, and that information yielded from the system should be incorporated within annual Care Programme Approach (CPA) meetings to provide a meaningful outcome measure of risk assessment and management of risk.

3.10 Chapter Summary

The current chapter demonstrates that the SCJ: Risk can be has been successfully implemented as part of ongoing clinical practice, and that this has been achieved within a forensic psychiatric setting. Adherence to best practice guidelines via structured professional judgement within multidisciplinary forums therefore forms a core component of the risk decision-making process within the institution. It was anticipated that successful implementation would be a necessary first step in the evaluation of the utility of the SCJ: Risk system in addressing the security needs of a high-secure hospital setting. As the proportion of patients with completed documentation was robust, an investigation as to the assessment and management of the patient population could therefore be conducted.

The evidence-base of the SCJ: Risk (and HCR-20) assessment scheme will be enriched in subsequent chapters by empirical investigations as to the clinical utility (practical use), predictive validity (utilizing intra-institutional behaviour as an outcome measure), and risk management (efficacy of prevention of identified risks). In this way a reciprocal loop may be achieved via feedback of research-based evidence into ongoing clinical practice. It is hoped that this research will contribute positively to the overall goal of clarity of risk communication, identification and management of high-risk patients within a special hospital.

Chapter Four

Perceived Clinical Usability and Utility of the SCJ: Risk

4.1 Introduction

Webster and Hucker (2007) state that: 'It should be clear...that the HCR-20 and allied devices fit within the tradition of evidence-based clinical practice, that its aim is to achieve the best possible collaboration between clinicians, researchers and administrators...increasingly the challenge is not so much to create new schemes but to verify and refine the ones now on hand. Much needed are studies to find out how best they can be introduced to settings in such a way that they will be understood, accepted, and developed by clinicians' (p.89). Previous Chapters have included investigation of the processes needed to ensure successful introduction and implementation of the SCJ: Risk within a forensic setting. It is the aim of the present Chapter to investigate the perceived utility and acceptance of a system of structured professional judgement based on the experiences of clinicians' use as part of routine clinical practice.

4.1.1 The Distinction Between Usability and Utility

Usability may be understood as the specific features, and characteristics of the interface that influence three factors. These are (i) *effectiveness*, (ii) *efficiency* and (iii) *satisfaction* and influence the extent to which individual users can achieve specified goals in a particular environment (International Standards Organisation (ISO), 1998). Within the context of the present study, this refers to clinical team member's perception of the usability of the system of structuring clinical judgement in terms of: (i) how well the task of risk assessment can be completed, (ii) how easy or quick it is to complete the task and (iii) a user's perception or opinion of the system. Chapter Three outlined the original intention of the SCJ: Risk system as a structured professional judgement approach designed to assist clinical team members

make and document high risk judgements in relation to the security needs of a high secure forensic hospital. As part of the validation of the SCJ: Risk within clinical practice, it is important to ascertain the usability of the system as 'the perception of a target user of the effectiveness (fit for purpose) and efficiency (work or time required to use) of the Interface' (ISO, 1998). Phrased another way, in addition to user satisfaction, it is important to quantify the perceived usefulness (PU or effectiveness) and the perceived ease of use (PEoU or efficiency) by measurement and quantification of attributes of the system. A distinction between usability and utility may be made. In addition to the usability of the system, the system's *utility* must be investigated to establish the *practical use* of the system and its ability to help perform the function for which it was intended.

In this way, the design and implementation of the system may be evaluated and progressively refined iteratively to incorporate user feedback until an acceptable level of usability and utility may be reached. Elements of the system may be improved to increase compliance and consistency of use by identification of areas not be perceived to be usable or useful. Positive and qualitative feedback may also contribute to the iterative process and overall aim of evolution of documentation and enhanced productivity in the assessment and management of patient risk. A system that is easy to use, and that has an easy to understand interface would reduce the need for extensive training, and would decrease the time needed to complete a risk related judgement (and thus costs to the hospital). It is therefore important to establish which, if any of the areas of documentation and implementation of the SCJ: Risk were less useful and usable in order to ascertain ways to improve the system of structured professional judgement.

4.1.2 Aims and Objectives

The purpose of the present Chapter was to investigate clinical team member use and perception of the SCJ: Risk system. Two phases were investigated (a pilot and a full implementation phase). The aim of the current report was to investigate the clinical usability and utility of the SCJ: Risk system of risk assessment and management.

4.1.3 Research Questions

A number of research questions were posed as part of the investigation as to the usability and clinical utility of the system of structured clinical judgement. The central question posed was: Is the SCJ: Risk system perceived as usable and useful by clinical team members? Research questions included nine areas related to (1) training, (2) perception of the system, (3) usability, (4) team functioning and multidisciplinary working, (5) piloting / implementation and support, (6) additional resources, policies, procedures and nominated contacts and (7) ongoing research and access of electronic records, (8) perceived clarity and relevance of the SCJ: Risk document and, (9) relevance of HCR-20/ SCJ: Risk total subscales.

4.1.4 Respondents / Participants

Pilot Phase

The SCJ: Risk was piloted within three of the five directorates (Learning Disability, 5 clinical teams; Personality Disorder, 1 clinical team; Mental Health, 4 clinical teams). Forty-five out of seventy respondents returned completed surveys (64%).

Implementation Phase

The system was implemented in all five clinical directorates (Dangerous and Severe Personality Disorder (DSPD), Personality Disorder (PD), Mental Health (MH), Learning Disability (LD) and Women's Services (WS)). One hundred and seventy surveys were distributed, and a total of eighty-seven respondents (51%) participated in the completion of the questionnaire designed to investigate the implementation phase of the SCJ: Risk. (DSPD, 18% (*n*=16); PD, 16% (*n*=14); MH, 46% (*n*=40); LD, 13% (*n*=11) and WS, 7% (*n*=6)). The following disciplines participated in the survey: Nursing Staff, 35% (*n*=31); Psychology, 17% (*n*=15); Occupational Therapy, 17% (*n*=14); Psychiatry, 10% (*n*=9); Social Work, 7% (*n*=6); Medical Staff, 6% (*n*=5); Security Liaison, 3% (*n*=3) and 5% (*n*=4) Other.

4.1.5 Method

4.1.5.1 Materials. The Likert Summated Scale

An appropriate way of measuring the perceived usability of a system of structuring professional judgement was the five-point Likert-type attitude scale (Likert, 1932; Likert, 1967; Rossi, Wright and Anderson, 1983). The values in the five-point Likert scale range from strongly agree to strongly disagree to which the participant responds by ticking (paper) or clicking (computer) the appropriate box. In analysing these responses, the clinical team member's 1-5 choice becomes enumerated. These enumerated responses are then inverted for the negatively skewed statements, around the midpoint. On a scale, where 5 is good usability and 1 is bad, in a question whereby the participant has rated they strongly agree with a positive statement the score would be 5 for that particular item, but a score of 1 would be allocated if they strongly agreed with a negative statement. Once the respondent had

completed the survey, results were analysed by experimental question. The distribution of clinical team members responses were analysed and presented in the figures below.

4.1.5.2 Pilot Phase

The investigation of the clinical utility of the SCJ: Risk of the pilot phase followed a five-stage approach: (i) Throughout the pilot phase of the project, observations and comments from the pilot wards were compiled during clinical team meetings involving discussion of the SCJ: Risk system. (ii) Unstructured interviews were then conducted with the nominated contact from each pilot ward regarding any information / opinion associated with the system. (iii) The comments were then collated and structured into a number of relevant questions relating to the SCJ: Risk system. Question items were also generated in response to the original aims of the project. (iv) A Likert response scale questionnaire (Appendix 2.1) was constructed and distributed to staff that had attended training, and to nominated contacts to distribute to staff within their clinical team normally involved in MDT discussions. Respondents were asked to indicate the extent to which they agreed or disagreed with a number of statements related to the SCJ: Risk system. The scale was as follows: 1 = Strongly Agree. 2 = Agree. 3 = Neutral. 4 = Disagree. 5 = Strongly Disagree. (v) The questionnaires were returned to the project coordinator and the results analysed. Following the pilot phase, comments and recommendations were suggested in an attempt to improve the usability of the system in preparation of the implementation phase across the hospital.

4.1.5.3 Implementation Phase

The Likert response scale was amended to address the needs of the user group (clinical teams) in line with the refined process of the implementation of the SCJ: Risk. A similar methodology adopted in the pilot was applied to the implementation phase, and the original survey used in the initial phase was updated following implementation. This was to ensure that the implementation survey encompassed questions relevant to current ongoing clinical practice, and changes following the pilot phase. To ensure adherence to ethical guidelines, the survey was disseminated to members of the SCJ: Risk steering group who advised as to the relevance of questions. The questionnaire was edited and an electronic version of the amended paper-based survey used during the pilot phase was designed (Appendix 2.2). Surveys were distributed to all clinical team members familiar with the use of the SCJ: Risk via the relevant clinical teams Responsible Medical Officer's Personal Assistant. This was to ensure that an up-to date distribution list was used. Following a poor response rate, the current author wrote personally to each Responsible Medical Officer and enclosed a number of paper-based surveys which were then distributed to members of the multidisciplinary team during SCJ: Risk discussions.

4.1.6 Results

4.1.6.1 Participants. Frequency of Use of the SCJ: Risk System

All respondents had experience of the SCJ: Risk in clinical practice. Following the pilot phase, clinical team members had been involved in a good proportion of SCJ: Risk discussions (66%, n=30 had assessed between one and six patients, 33%, n=15 between seven and in excess of fourteen cases). Of the respondents from the implementation phase, just under half had been involved in

fifteen or more discussions (49%, *n*=35). Of the remaining proportion, ten per cent had been involved in between ten and fifteen discussions (*n*=9), twenty-one per cent had participated in between six and ten discussions (*n*=18), and twenty per cent between one and five discussions (*n*=17).

Figure 4.1 illustrates the frequency of respondent's use of the SCJ: Risk within each Directorate (a detailed breakdown of the number and proportion of responses by Directorate may be found in Table C0.1 Frequency of Use of the SCJ: Risk System, Appendix 2.4). Respondents from the PD Directorate had utilised the tool within clinical practice most frequently, with eighty-six per cent (*n*=12) of respondents having used the tool in excess of ten occasions (79%, *n*=11 of whom had engaged in fifteen or more occasions, and none of whom had participated in less than six discussions). Over half (56%, *n*=9) of respondents from the DSPD Directorate had participated in fifteen or more discussions, and under a third (31%, *n*=5) participated in ten or more. By comparison, participants from MH, LD and WS had utilised the system less. However, these Directorates still displayed regular use of the system. Mental Health, Learning Disability and Women's Service Directorates had experience of use of the system in excess of fifteen occasions: MH (42%, *n*=17); LD (36%, *n*=4); WS (33%, *n*=2). Participation in SCJ: Risk discussions of a frequency between six and ten occasions were evident across PD (14%, *n*=2), MH (30%, *n*=12), LD (28%, *n*=3) and WS (17%, *n*=1). The Learning Disability and Women's Service Directorates had a greater proportion of respondents experiencing the system within clinical practice between one and five occasions (LD (36%, *n*=4; WS (33%, *n*=2) indicating that these respondents utilised the SCJ: Risk on fewer occasions compared to other Directorates. However, these findings illustrate that

respondents demonstrated applied practical experience of the SCJ: Risk. This is indicative of knowledge of the process of implementation and documentation, which was important to establish when commenting on the utility of the system via the evaluation survey.

Figure 4.1. Percentage of Use of the SCJ: Risk System Displayed by Directorate

4.1. Frequency of use of the SCJ: Risk

4.2 Training

A robust training programme was central to the pilot and implementation of the SCJ: Risk. Training facilitators attended accredited HCR-20 and PCL-R training, and had experience of the application of the HCR-20 within a research and clinical setting. The aim of training was to ensure that the SCJ: Risk would be used in a consistent and professional manner.

All clinical team members received training in the HCR-20 and SCJ: Risk via structured sessions and participation in facilitated SCJ: Risk discussions as part of ongoing clinical practice. Training was attended by members of clinical teams to reflect the multidisciplinary team in which they worked. Content of training sessions (various) included; (i) theoretical underpinnings and (ii) understanding of the practical application. Learning objectives included; (i) understanding of the background of risk assessment, the structured professional judgement approach as evidence based practice, the HCR-20 and SCJ: Risk, and (ii) practice of completion of the SCJ: Risk via vignettes, live case examples and feedback of ratings. In addition, training involved guidance and discussion of how to implement the SCJ: Risk effectively within each clinical team.

4.2.1 Research Questions

The following questions related to identification of training needs. All questions were presented during the implementation phase. Questions 1.1 and 1.4 only were posed following the pilot phase. Respondents were asked:

1.1. If they had attended a formal training day? (Respondents were asked to indicate the format that they attended).

1.2. If SCJ: Risk training should be mandatory?

1.3. How initial training for new members of staff should be delivered?

1.4. If refresher training should be provided?

1.4.1. How often refresher training should be completed?

1.4.2. How refresher training should be delivered?

4.2.2 Results

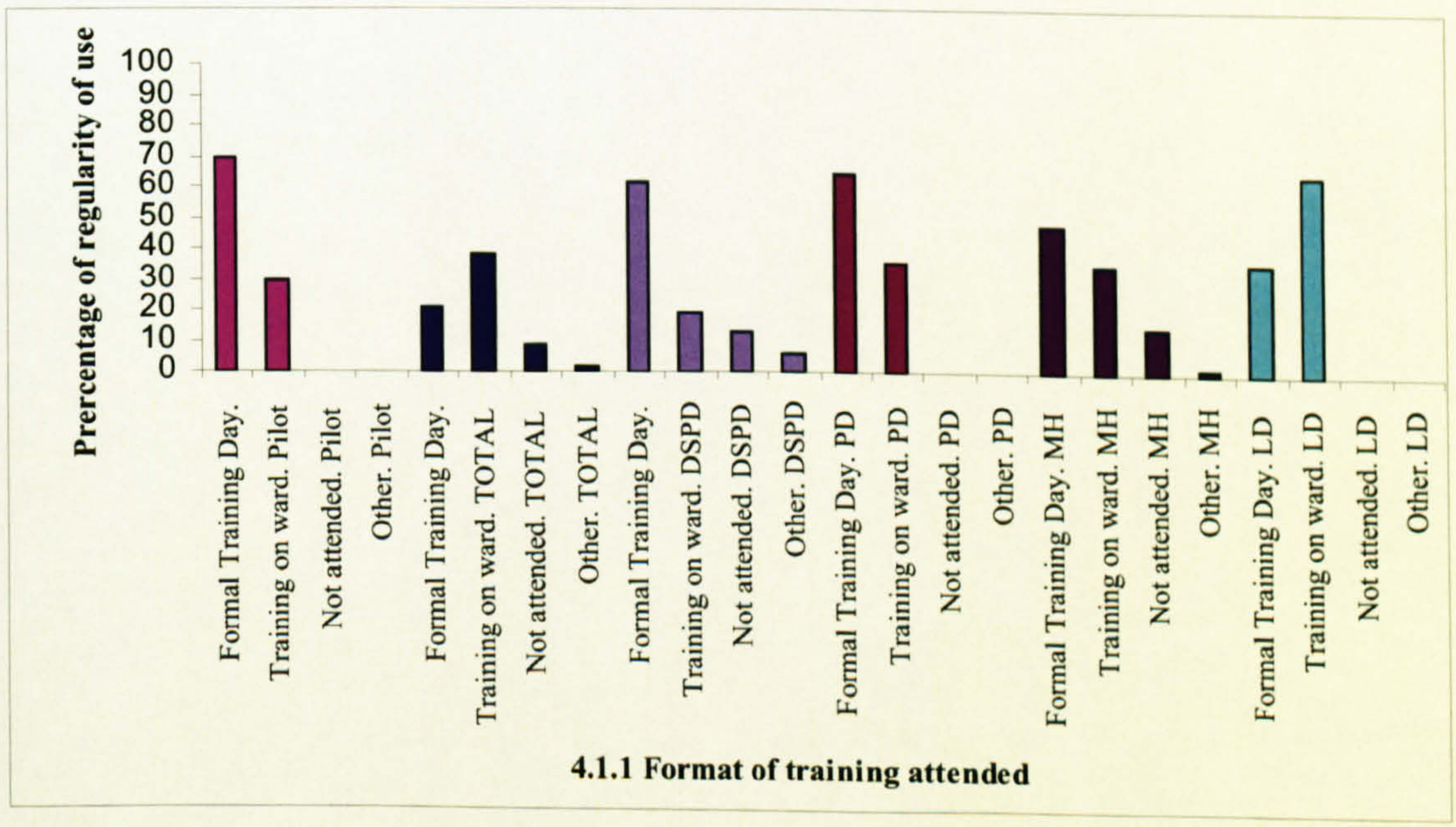
The number and proportion of responses in relation to training may be found in Table C1, Appendix 2.4.

1.1. The evaluation of training showed that the one hundred per cent of team members involved in the pilot phase survey had attended SCJ: Risk training. At the time of implementation eighty-nine per cent of respondents had received SCJ: Risk training: DSPD (81%, *n*=13); PD (100%, *n*=14); MH (83%, *n*=33); LD (100%, *n*=11); WS (100%, *n*=6).

Training delivered via a formal training day was the most frequently attended mode of delivery. Seventy per cent of respondents involved in the pilot phase received training via this format (*n*=32). During the implementation phase, just over

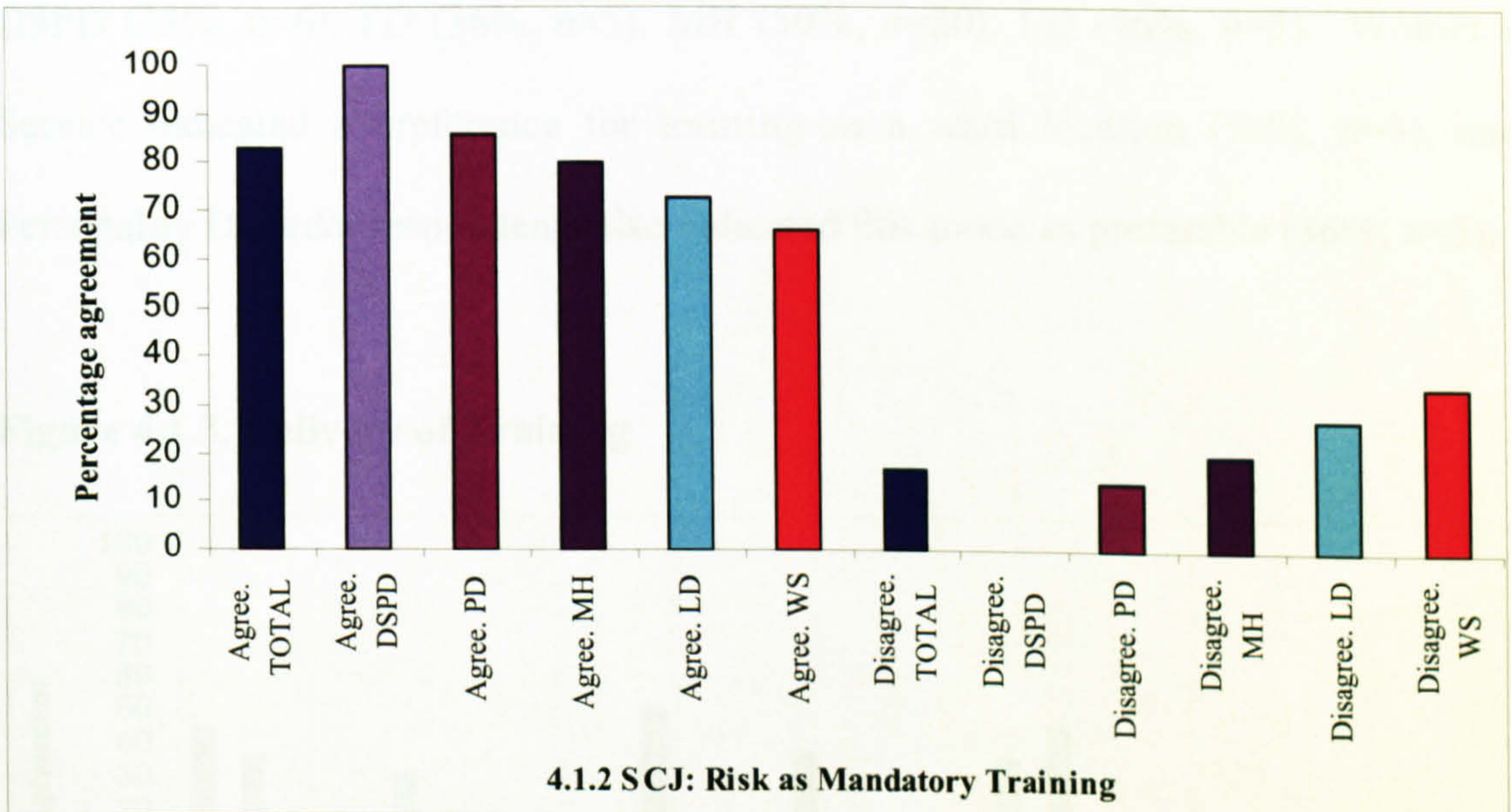
half received training delivered via a formal training day (51%, *n*=44). The remaining proportion received training given by the SCJ: Risk team on ward location (38%, *n*=33), and a small number of staff had received other forms of training (individual training by a member of the SCJ: Risk team, 2%, *n*=2). Results showed that some team members had not attended formal training, but used the SCJ: Risk (9%, *n*=8). Figure 4.1.1 illustrates difference in the type of training format attended by clinical team members responding to the survey within each Directorate. The majority of respondents within DSPD (62%, *n*=10); PD (64%, *n*=9) and MH (48%, *n*=19) received training via a formal session delivered over one day. Within LD and WS training on ward location was the most frequently attended mode of delivery (64%, *n*=7 and 66%, *n*=4 respectively). The DSPD and MH Directorate respondents had experience of use of the SCJ: Risk system in clinical practice, but indicated that they had not attended any formal training (13%, *n*=2 and 15%, *n*=6 respectively). Respondents from the remaining Directorates had all received formal training.

Figure 4.1.1. Attendance and Formal Delivery of Training



1.2. Following the implementation phase, the majority of respondents indicated agreement that SCJ: Risk training should be mandatory (83%, *n*=72). The proportion of agreement between directorates ranged between 100% (DSPD, *n*=16) and 66% (WS, *n*=6).

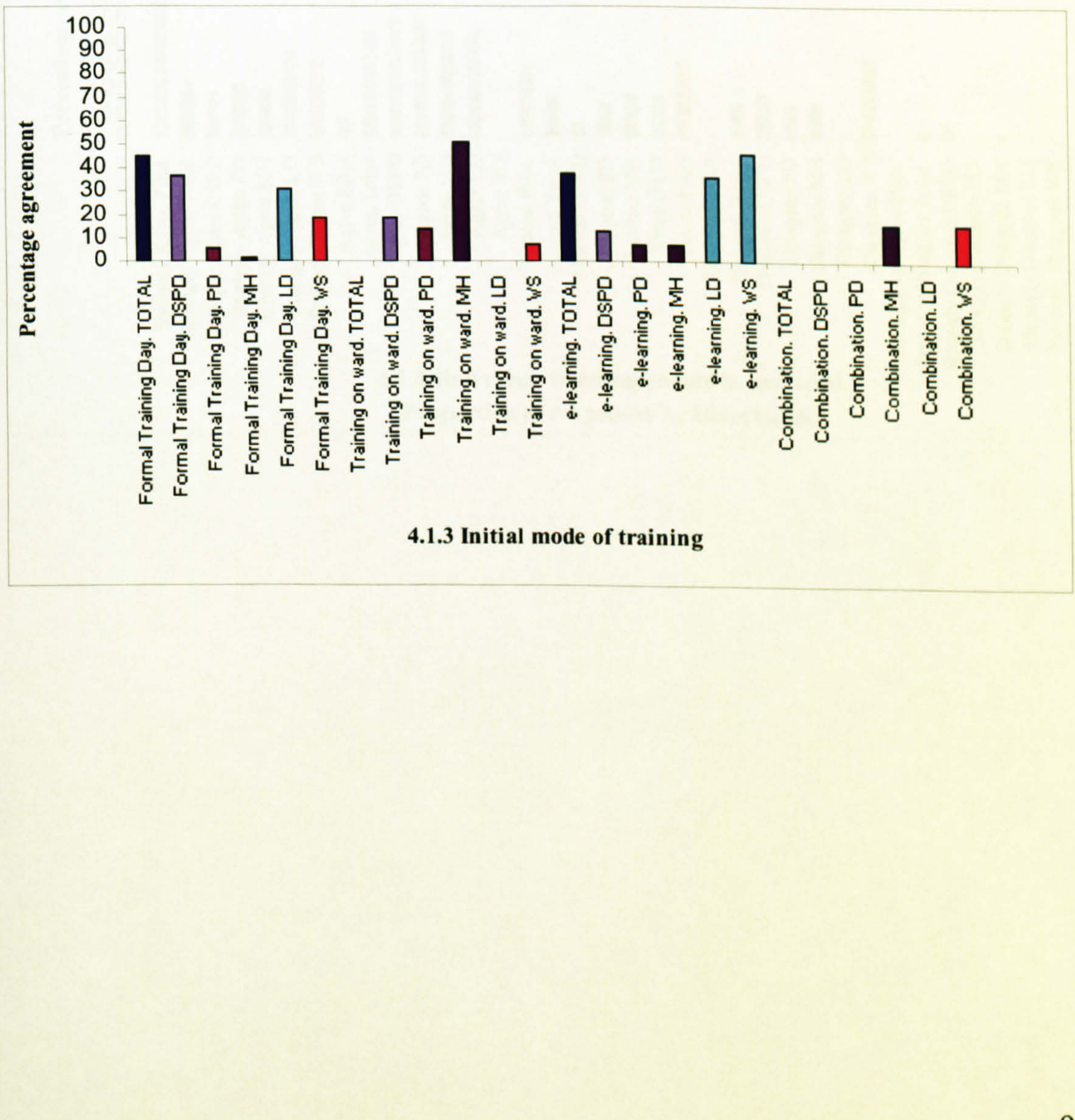
Figure 4.1.2. SCJ: Risk as Mandatory Training



4.1.2 SCJ: Risk as Mandatory Training

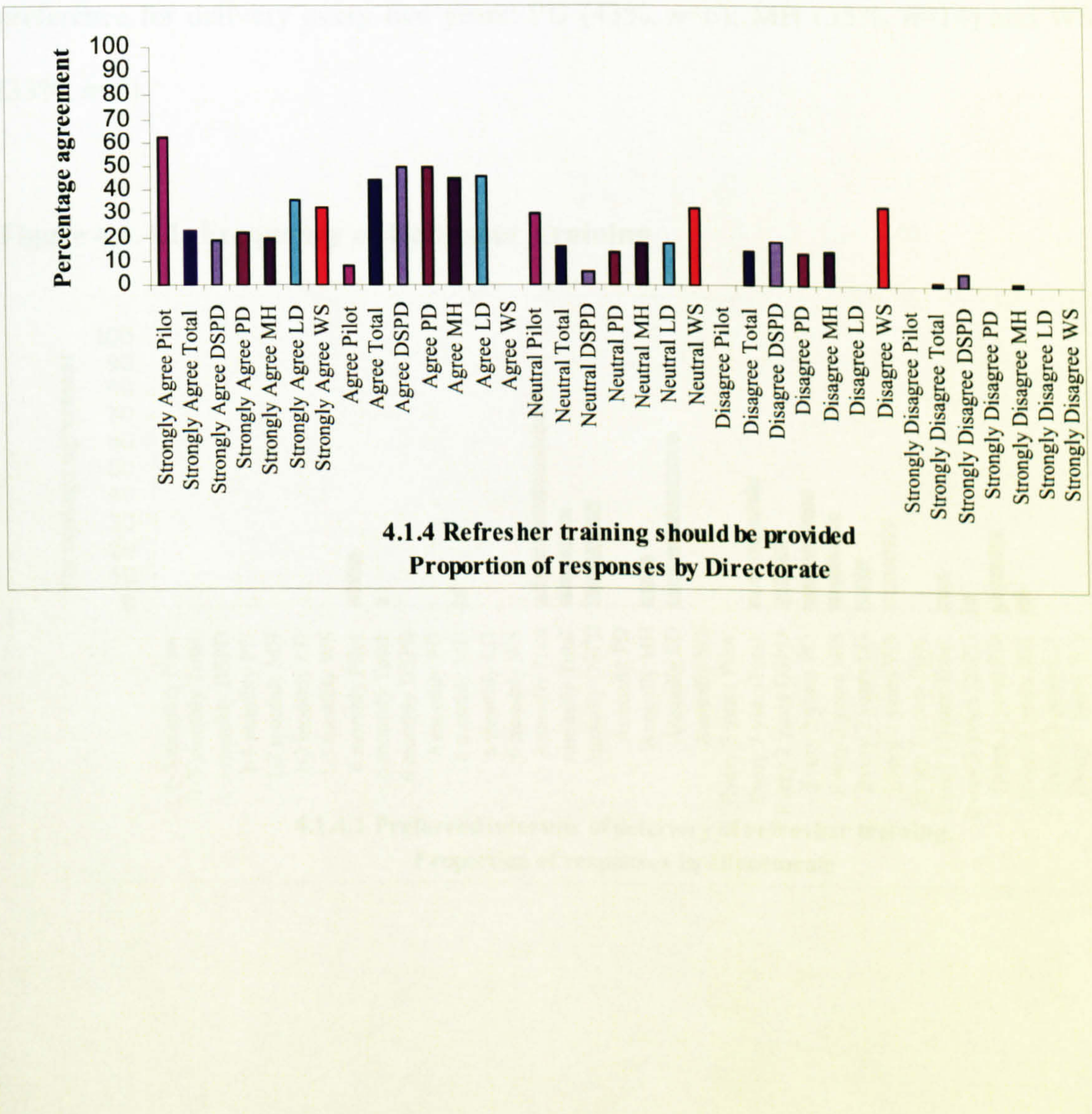
1.3. When asked to indicate how initial training for new members of staff should be delivered, the option most frequently specified was that of formal delivery facilitated by a trainer (43%, *n*=37). Participation during ongoing SCJ discussions (25%, *n*=22), e-learning (7%, *n*=6) and a combination of approaches (25%, *n*=22) were also considered relevant modes of delivery. All Directorates, with the exception of Women's Service indicated a preference for a formal training day: DSPD (38%, *n*=6); PD (36%, *n*=5); MH (50%, *n*=20); LD (46%, *n*=5). Women's Service indicated a preference for training on a ward location (50%, *n*=3), and Personality Disorder respondents also indicated this mode as preferable (36%, *n*=5).

Figure 4.1.3. Delivery of Training



1.4. During the pilot phase, a significant proportion of all respondents (71%, *n*=32) asserted that refresher training should be provided. Over two-thirds of respondents following the implementation phase indicated agreement that refresher training should be provided (23% (*n*=20) strongly agreed; 44% (*n*=38) agreed, with the remaining sample neutral (16%, n=14), disagreeing (15%, n=13) or strongly disagreeing (2%, n=2). All directorates agreed that refresher training should be provided, with the exception of Women's Services (34%, *n*=2 disagreed).

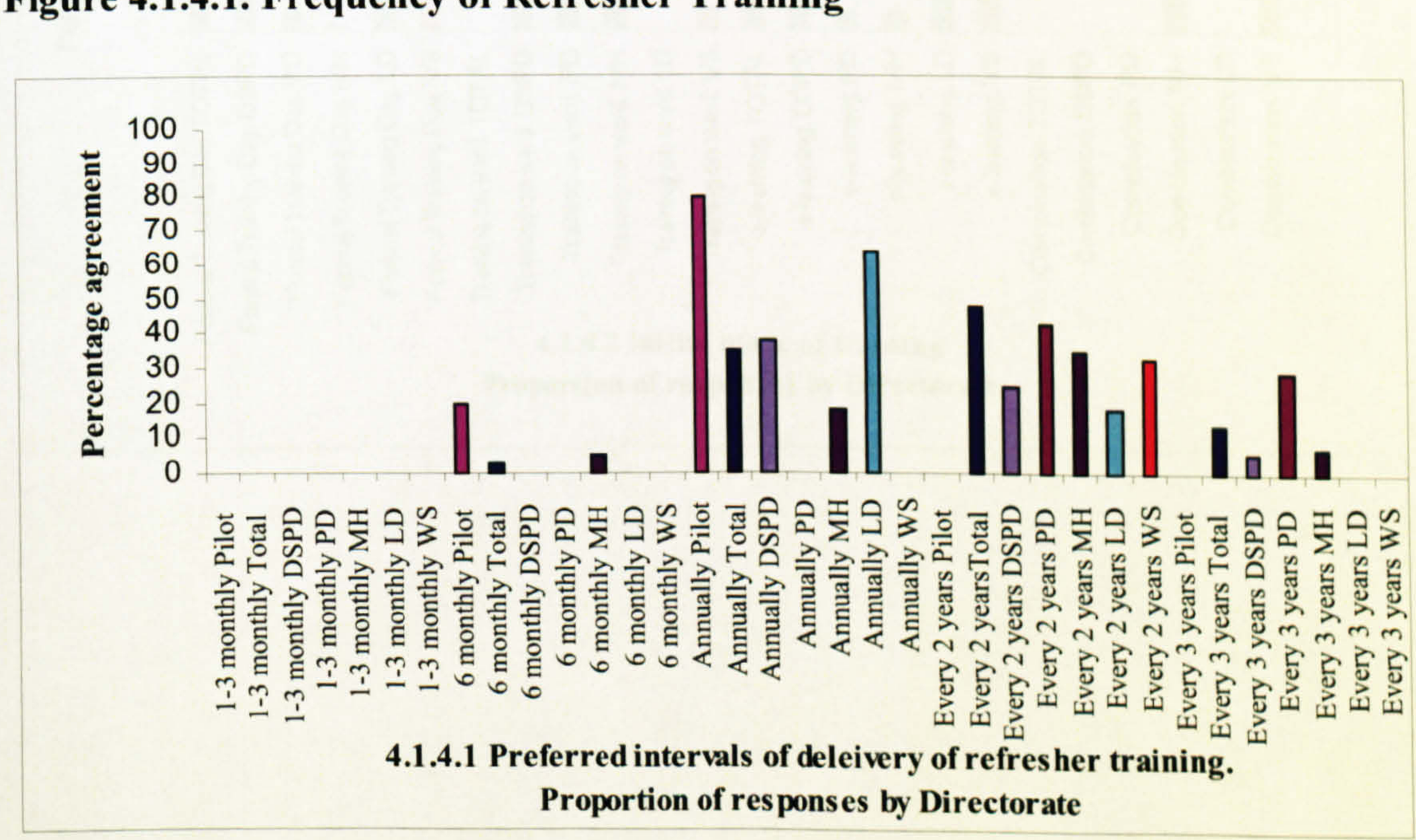
Figure 4.1.4. Refresher Training



4.1.4 Refresher training should be provided
Proportion of responses by Directorate

1.4.1. The majority of respondents from the pilot phase suggested that training should be attended on an annual (80%, *n*=36) or six monthly basis (20%, *n*=9). Following the implementation phase, of the clinical staff agreeing that refresher training should be provided, just under half indicated that this should be attended at a frequency of every two years (48%, *n*=28), the remaining sample indicated six monthly completion (3%, *n*=2), annual completion (35%, *n*=20), or attendance every three years (14%, *n*=8) to be appropriate. DSPD and LD Directorates indicated a preference for refresher training to be delivered annually (38%, *n*=6; 64%, *n*=7 respectively). The remaining Directorates indicated a preference for delivery every two years: PD (43%, *n*=6); MH (35%, *n*=14) and WS (33%, *n*=2).

Figure 4.1.4.1. Frequency of Refresher Training

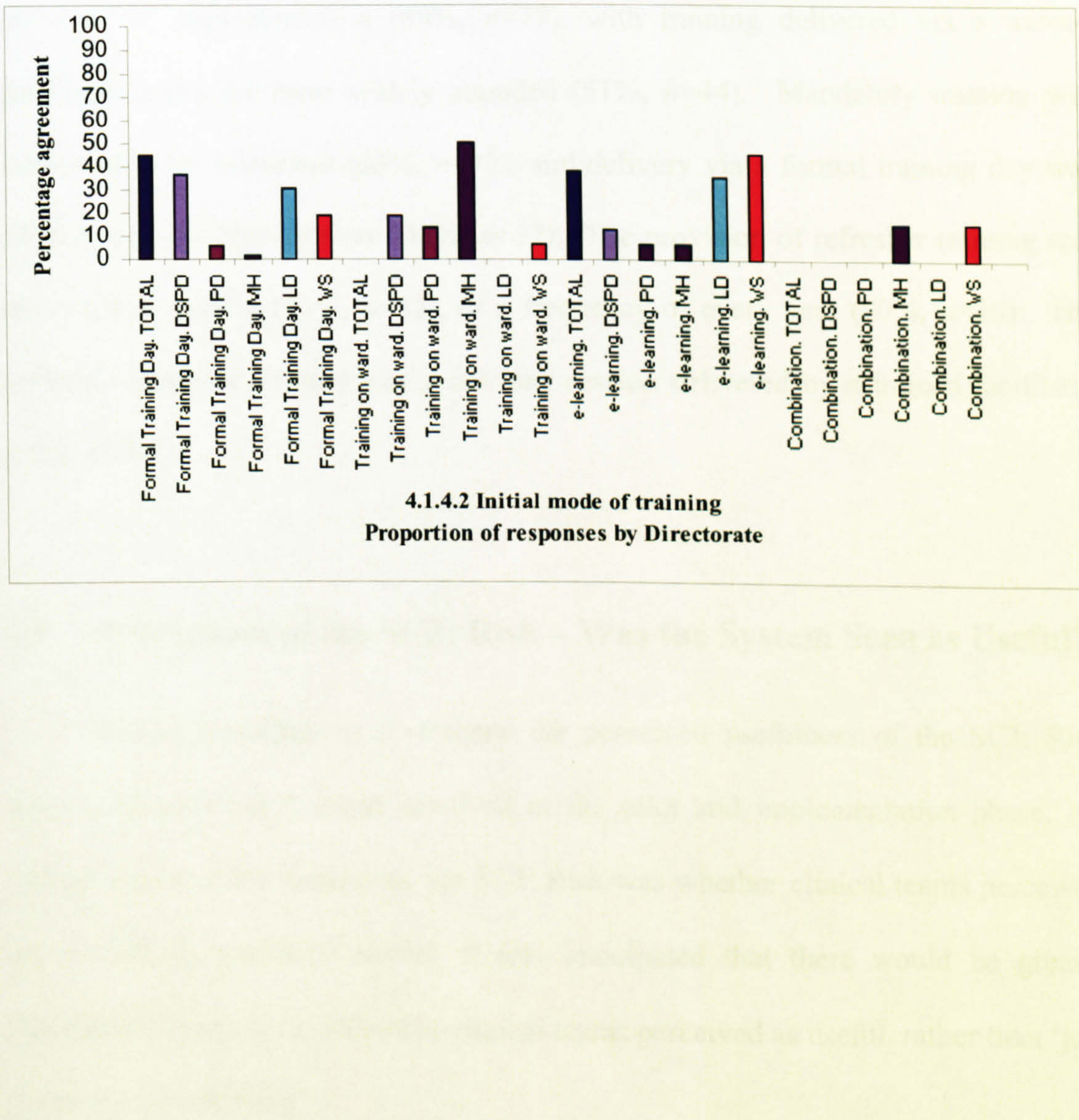


4.1.4.1 Preferred intervals of deleivery of refresher training.

Proportion of responses by Directorate

1.4.2. The preferred mode of delivery of refresher training was via formal sessions facilitated by a trainer (45%, *n*=26), participation during ongoing SCJ discussions (37%, *n*=21), e-learning (6%, *n*=3) and a combination of each approach (2%, *n*=8). Three Directorates indicated preference for a formal training day: DSPD (31%, *n*=5); MH (38%, *n*=15), LD (36%, *n*=4). Consistent with opinion related to mode of delivery for new staff members, the remaining two Directorates indicated a preference for training on the ward location (PD, 51%, *n*=7; WS, 16%, *n*=1).

Figure 4.1.4.2. Preferred Mode of Delivery of Refresher Training



4.2.3 Summary of Results

Pilot

All respondents from the pilot phase had received training in the use of the SCJ Risk system (100%, *n*=45), and the majority asserted that refresher training should be provided (71%, *n*=32).

Implementation

High proportions of individuals who had received training were apparent at the time of implementation (89%, *n*=77), with training delivered via a trained facilitator being the most widely attended (51%, *n*=44). Mandatory training was perceived to be important (83%, *n*=72), and delivery via a formal training day was identified as the best medium (43%, *n*=37). The provision of refresher training was identified as needed (71%, *n*=32), of a frequency of every year (80%, *n*=36). The preferred mode of training was a one day session delivered by a trained facilitator (45%, *n*=26).

4.3 Perception of the SCJ: Risk – Was the System Seen as Useful?

It was important to investigate the perceived usefulness of the SCJ: Risk system within clinical teams involved in the pilot and implementation phase. A critical aspect of the success of the SCJ: Risk was whether clinical teams perceived the system as genuinely useful. It was anticipated that there would be greater compliance in using a system that clinical teams perceived as useful, rather than 'just another paper exercise'.

4.3.1 Research Questions

The following questions related to the perception of the SCJ: Risk were investigated:

If the SCJ: Risk system…:

2.1. was perceived as useful?

2.2. assisted clinical teams make and document risk related decisions?

2.3. was useful in documenting the Tilt security review recommendations of related judgements?

2.4. was useful to construction of a risk management plan?

2.5. was useful to informing clinical practice?

2.6. was useful to informing patient care?

2.7. accurately assessed a patients risk?

2.8. helps planning for future scenarios

Questions 2.1 to 2.5, and question 2.6 were asked at the time of pilot and implementation. Question 2.8 was not posed at the time of pilot, and question 2.6 was not posed during the implementation phase.

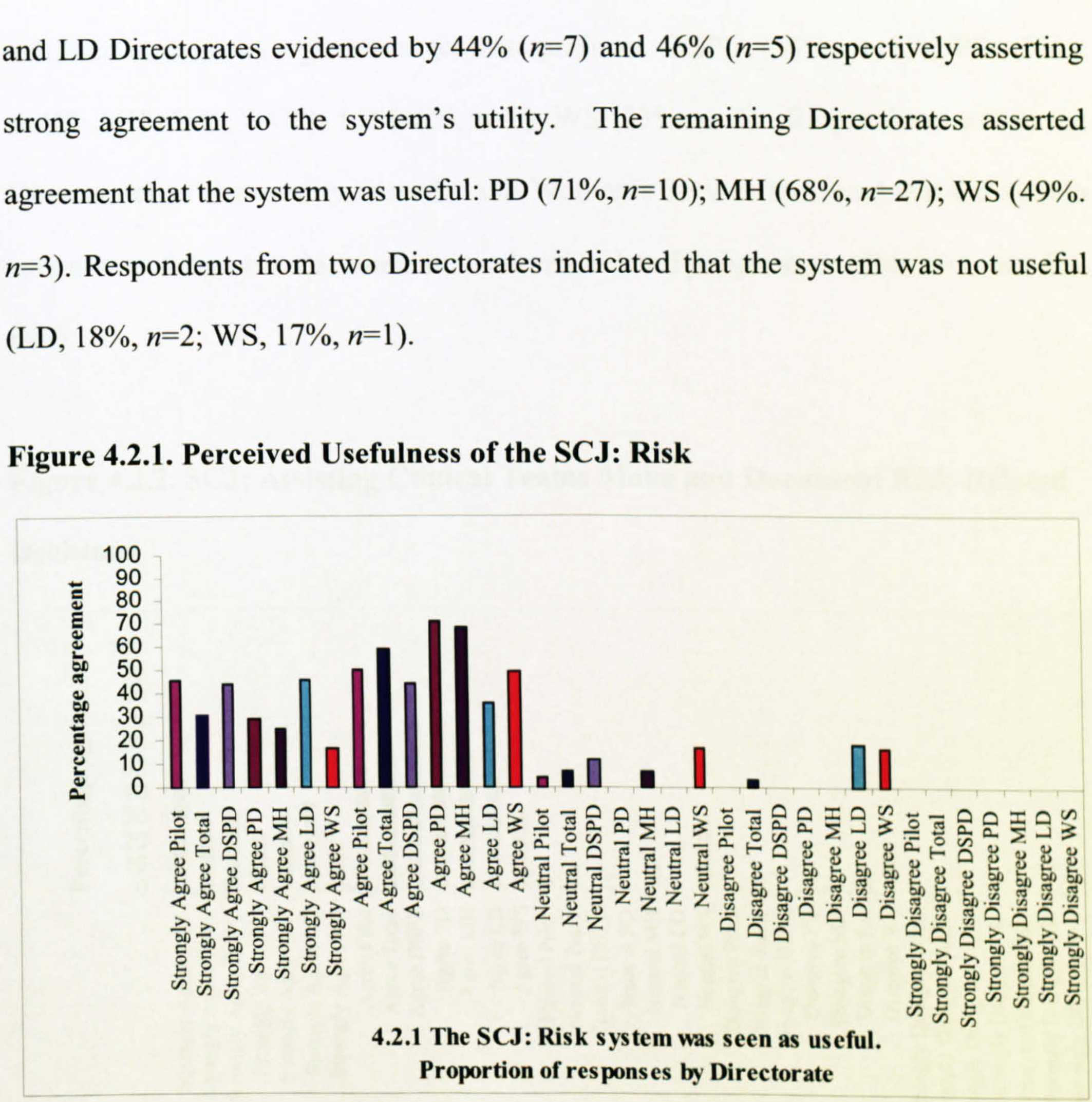
4.3.2 Results

A detailed summary of the number and proportion of responses per question posed in relation to perception of the SCJ: Risk system may be found in Table C2, Appendix 2.4.

2.1. Ninety-six per cent of pilot respondents rated the SCJ: Risk system as useful (46%, *n*=20 strongly agreed; 50%, *n*=22 agreed), the remaining four per cent (*n*=3) logged a neutral opinion. Perception of the overall usefulness of the system fell by six per cent when canvassed at implementation phase (31%, *n*=27 strongly agreed; 59%, *n*=51 agreed). A smaller proportion expressed a neutral opinion (7%, *n*=6) and a minority of respondents did not perceive the system as useful (3%, *n*=3).

The SCJ: Risk system was perceived the most positively by respondents in DSPD and LD Directorates evidenced by 44% (*n*=7) and 46% (*n*=5) respectively asserting strong agreement to the system's utility. The remaining Directorates asserted agreement that the system was useful: PD (71%, *n*=10); MH (68%, *n*=27); WS (49%. *n*=3). Respondents from two Directorates indicated that the system was not useful (LD, 18%, *n*=2; WS, 17%, *n*=1).

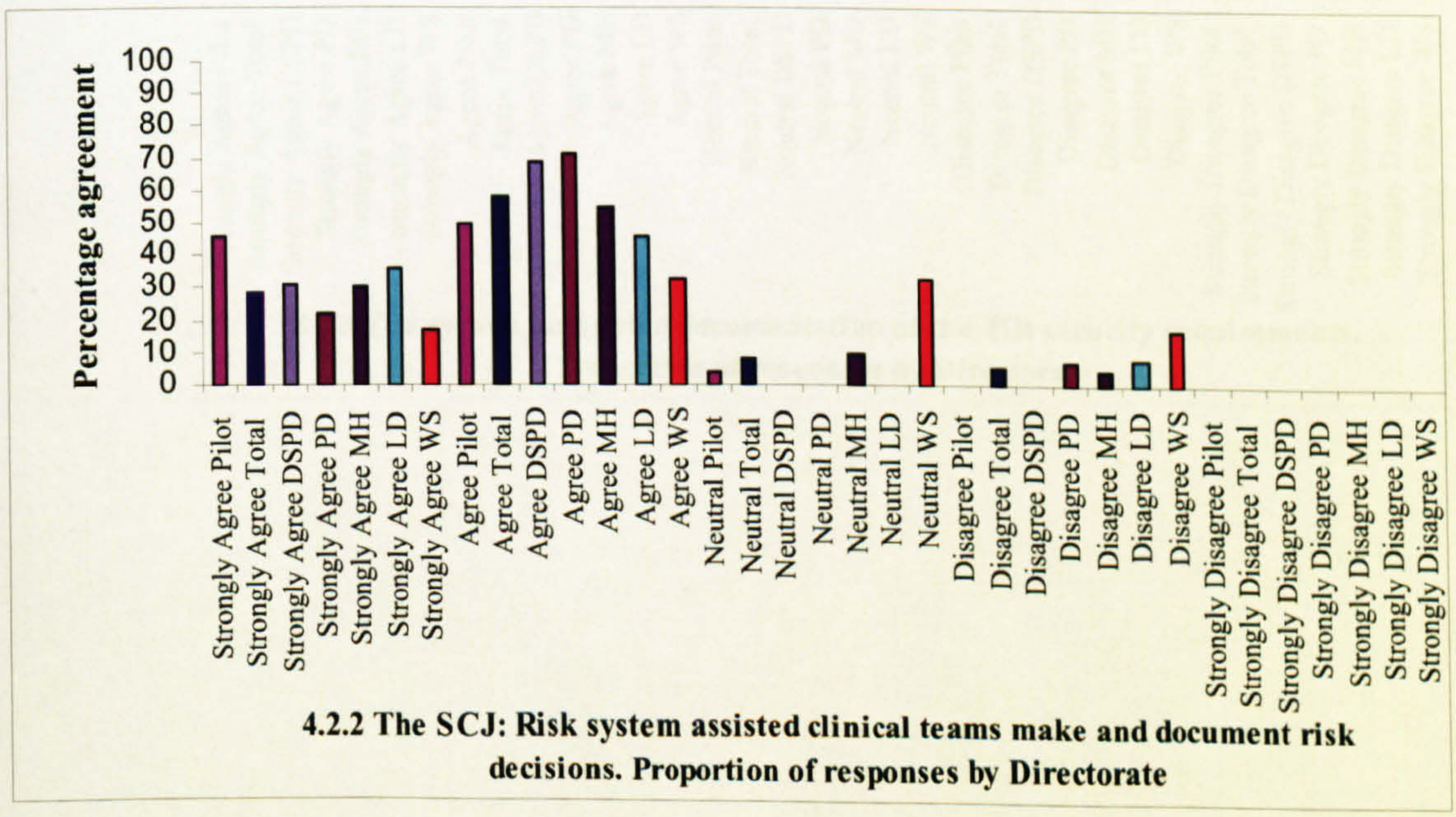
Figure 4.2.1. Perceived Usefulness of the SCJ: Risk



4.2.1 The SCJ: Risk system was seen as useful.
Proportion of responses by Directorate

2.2. The majority (96%, *n*=42) of respondents surveyed after the pilot phase agreed that the SCJ: Risk assisted clinical teams make and document risk related decisions (46%, *n*=42 strongly agreed; 50%, *n*=22 agreed), the remaining proportion (4%, *n*= 3) logged a neutral opinion. The agreement level at the implementation phase was eighty-seven per cent (of whom 29% per cent strongly agreed (*n*=25) and 58% agreed (*n*=50). Six per cent (*n*=5) disagreed that the system was beneficial to the documentation of risk-related decisions. All Directorates indicated a majority agreement to this question: DSPD (69%, *n*=11); PD (71%, *n*=10); MH (55%, *n*=22); LD (46%, *n*=5); WS (33%, *n*=2). Respondents within the Directorates of Personality Disorder and Women's Service indicated that the system was not useful to the documentation of risk-related judgements (7%, *n*=1 and 5%, *n*=2).

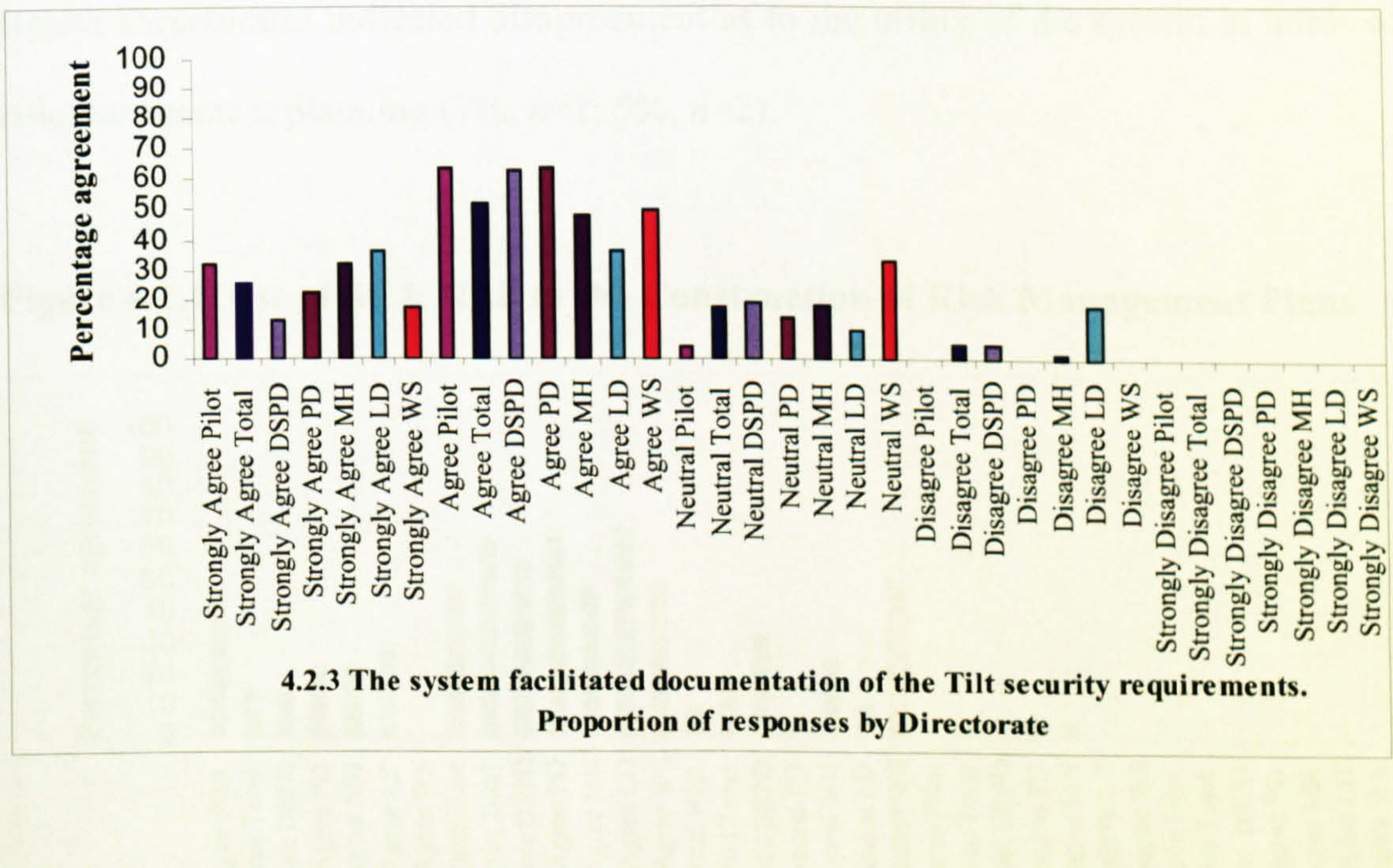
Figure 4.2.2. SCJ: Assisting Clinical Teams Make and Document Risk-Related Decisions



4.2.2 The SCJ: Risk system assisted clinical teams make and document risk decisions. Proportion of responses by Directorate

2.3. Ninety-six per cent of individuals surveyed at the pilot phase asserted that the SCJ: Risk system was useful in documenting the Tilt security review recommendations and related judgements (32%, *n*=20) strongly agreed; 64%, *n*=22) agreed). The remaining respondents (4%, *n*=3) were neutral in their opinion. The proportion of neutral responses was more prevalent at the time of implementation (17%, *n*=15). Eighteen per cent less attested to the use of the system to fulfil documentation of Tilt security objectives at the time of implementation (26%, *n*=23 strongly agreed, 52%, *n*=45 agreed), however, the majority of respondents agreed to the question posed.

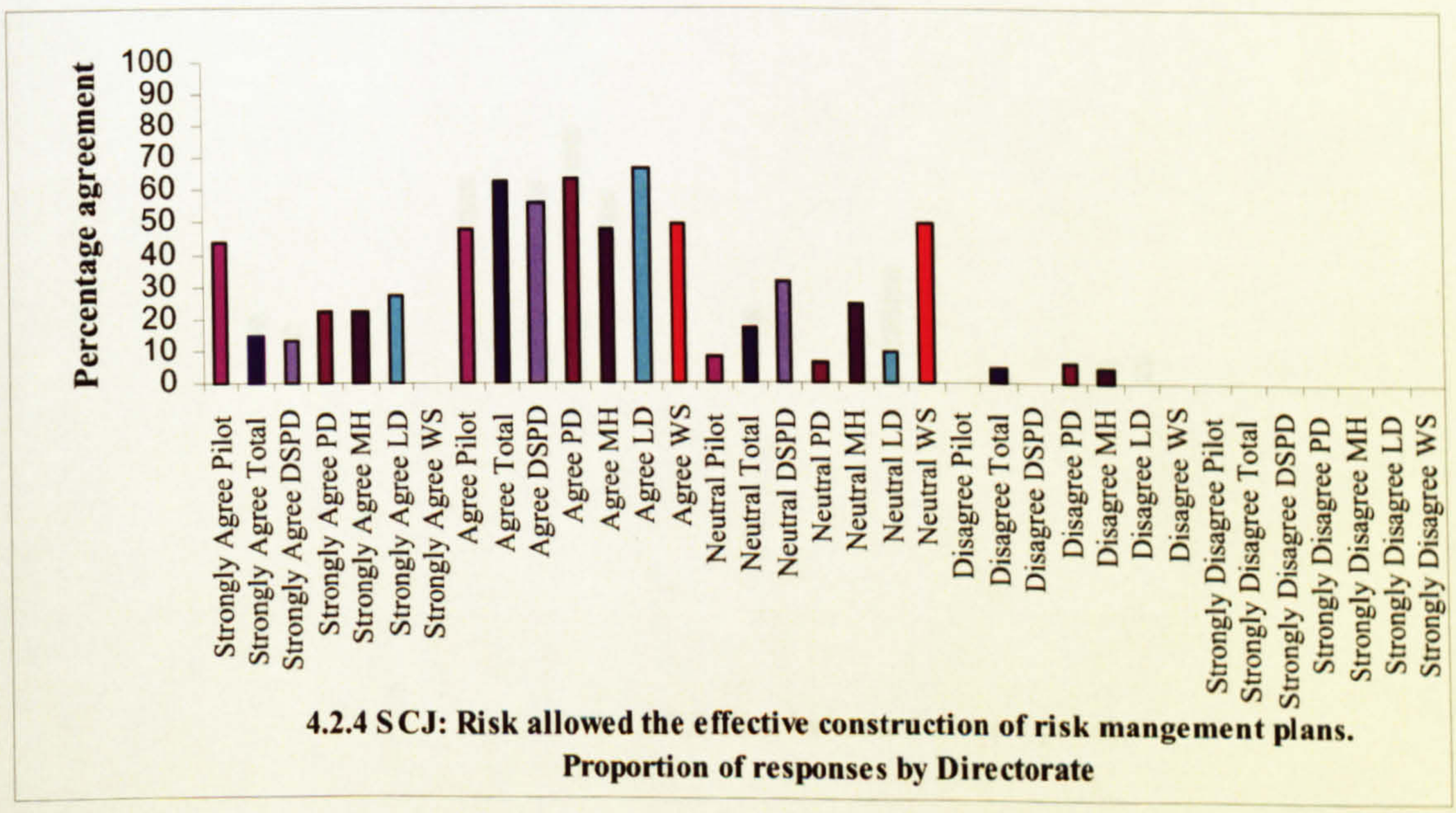
Figure 4.2.3. Use of SCJ: Risk to Documentation of Tilt requirements



4.2.3 The system facilitated documentation of the Tilt security requirements. Proportion of responses by Directorate

2.4. Following the pilot phase, ninety-two per cent of individuals in clinical teams asserted that the SCJ: Risk system was useful to the effective construction of risk management plans (44%, *n*=14 of whom strongly agreed; 48%, *n*=29 agreed and 8%, *n*=2 were neutral in their opinion). At the time of implementation seventy-eight per cent indicated agreement (15%, *n*=13 per cent strongly agreed; 63%; *n*=55 agreed), however a small proportion asserted that the system did not perceive the system to be of benefit to the construction of risk management plans (5%, *n*=4 disagreed to the statement). The majority of respondents from each Directorate agreed that the system was useful in this regard: DSPD (56%, *n*=9); PD (64%, *n*=9: MH *(*48%, *n*=19): LD (67%, *n*=7): WS (50%, *n*=3). A small proportion of respondents in the Personality Disorder and Mental Health Directorates indicated disagreement as to the utility of the system in terms of risk management planning (7%, *n*=1; 5%, *n*=2).

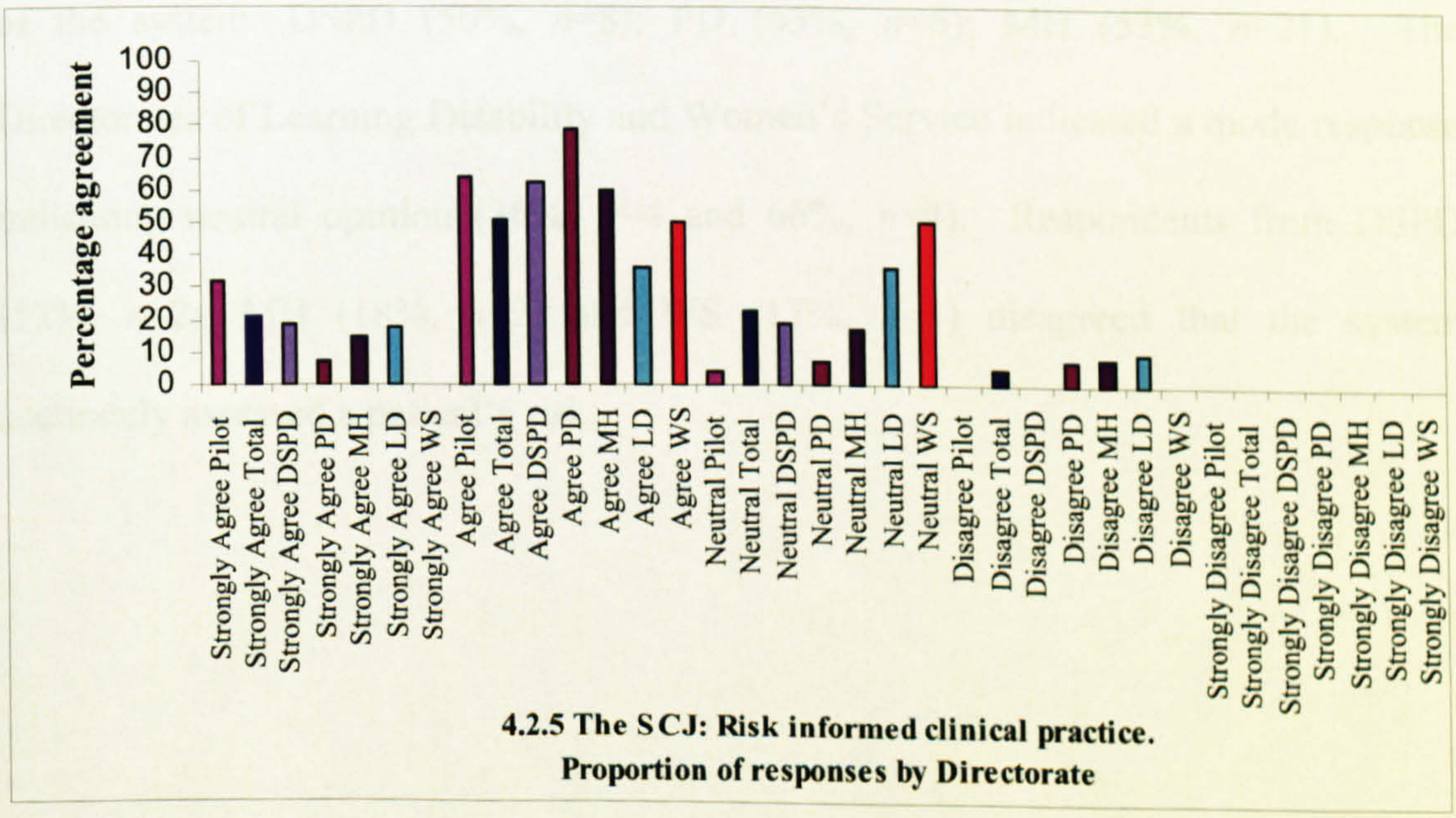
Figure 4.2.4. Use of SCJ: Risk to the Construction of Risk Management Plans



4.2.4 SCJ: Risk allowed the effective construction of risk mangement plans. Proportion of responses by Directorate

2.5. Ninety-six per cent of respondents either strongly agreed or agreed to the statement that the SCJ: Risk was useful to informing clinical practice following the pilot phase (32%, *n*=20 strongly agreed; 64%, *n*=22 agreed; and the remaining 4%, *n*=3 neutral in their opinion). The perceived relevance of the system to clinical practice following implementation fell to seventy-two per cent (21%, *n*=18 strongly agreed, 51%, *n*=44 agreed, 23%, *n*=20 were neutral). A minority of respondents disagreed to the use of the SCJ: Risk when informing clinical practice (5%, *n*=5). Differences between Directorates were not observed, and each indicated majority agreement as to the use of the system: DSPD (62%, *n*=10); PD (79%, *n*=11); MH (60%, *n*=24); LD (36%, *n*=4); WS (50%, *n*=50%). Neutral responses were indicated from two Directorates: LD (36%, *n*=4); WS (50%, *n*=3). The system was not perceived as useful to clinical practice by a proportion of respondents within Directorates of: PD (7%, *n*=1), MH (8%, *n*=3) or LD (10%, *n*=1).

Figure 4.2.5. Use of the SCJ: Risk to Informing Clinical Practice

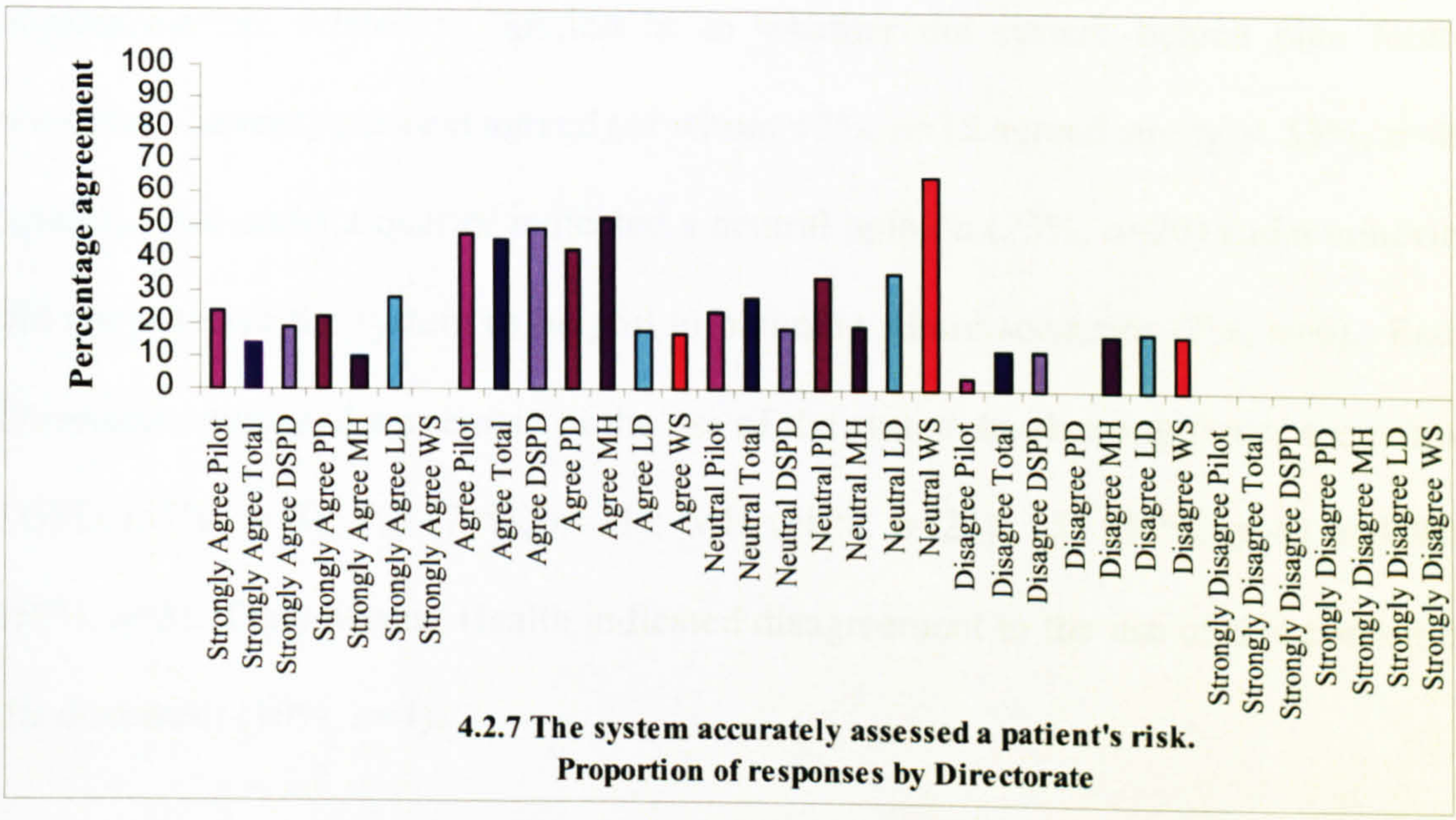


4.2.5 The SCJ: Risk informed clinical practice.
Proportion of responses by Directorate

2.6. Clinical teams were asked following the pilot phase to indicate if they considered the system to be useful to informing patient care. The majority indicated agreement (24%, *n*=11 strongly agreed; 56%, *n*=25 agreed). Twenty per cent had indicated a neutral opinion (*n*=9). This question was not posed during the implementation phase following editing agreed by the risk steering group.

2.7. Following the first survey, seventy-two per cent of respondents familiar with using the system either strongly agreed or agreed that the SCJ: Risk accurately assessed a patient's risk (24%, *n*=11 of whom strongly agreed; 48%, *n*=21 agreed). Just under a quarter indicated a neutral opinion (24%, *n*=11). A similar trend was observed following the implementation phase (14%, *n*=12 strongly agreed; 46%, *n*=40 agreed; 28%, *n*=24 neutral). At the time of implementation, a higher proportion of respondents indicated an opinion that the system did not accurately assess a patient's risk (12%, *n*=11 compared with 4%, *n*=2 after the pilot phase). The most frequent response within three Directorates indicated agreement to the accuracy of the system: DSPD (50%, *n*=8); PD (43%, *n*=6); MH (53%, *n*=21). The Directorates of Learning Disability and Women's Service indicated a mode response indicating neutral opinion (36%, *n*=4 and 66%, *n*=4). Respondents from DSPD (12%, *n*=2); MH (18%, *n*=2) and WS (17%, *n*=1) disagreed that the system accurately assessed a patient's risk.

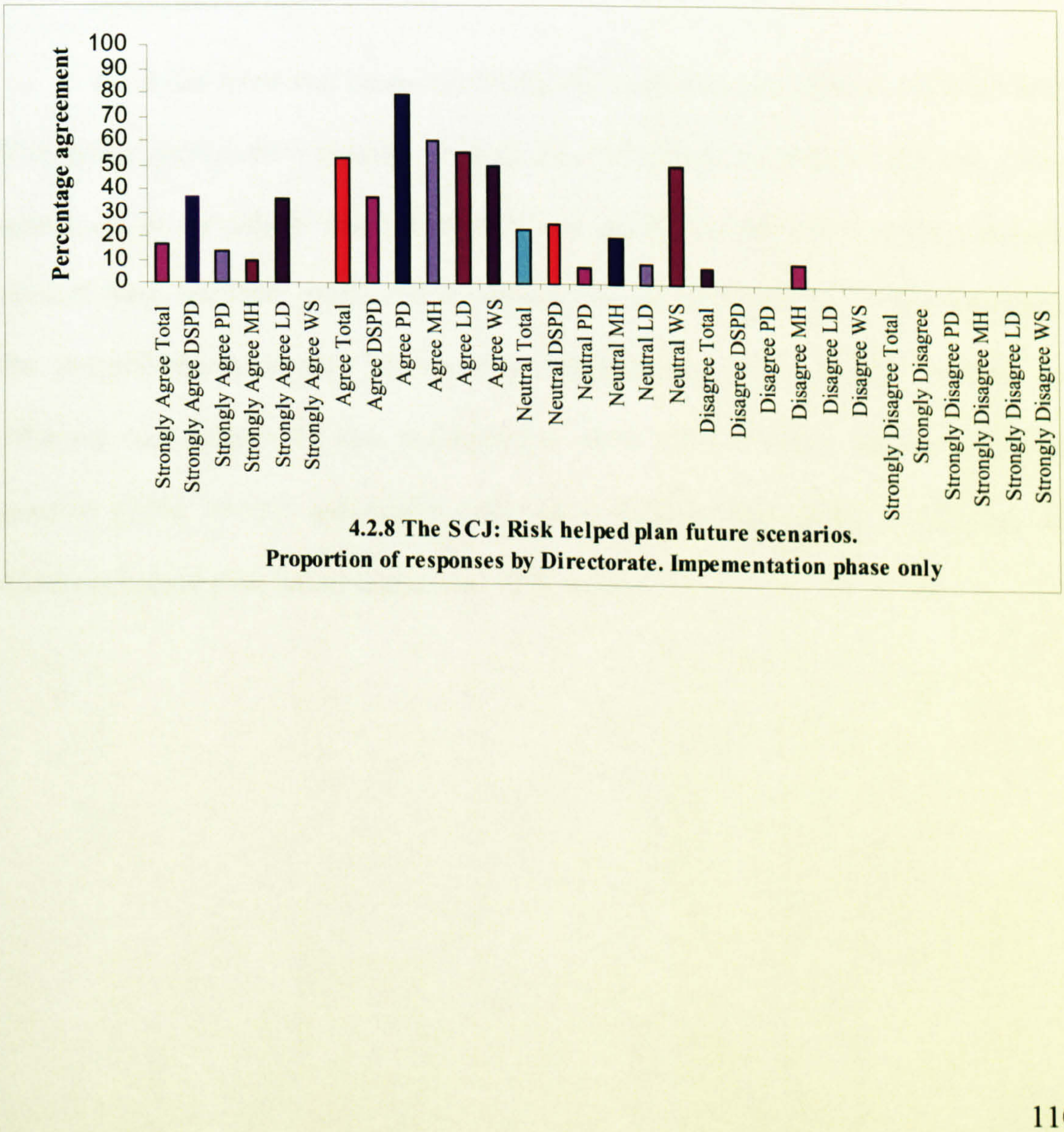
Figure 4.2.7. Perceived Accuracy of the SCJ: Risk to Assessing Patient Risk



4.2.7 The system accurately assessed a patient's risk.
Proportion of responses by Directorate

2.8. An additional question to the pilot phase was posed following implementation, related to opinion as to whether the system helped plan future scenarios. Seventy per cent agreed (of whom 17%, *n*=15 agreed strongly; 53%, *n*=46 agreed). Just under a quarter indicated a neutral opinion (23%, *n*=20) and a minority did not perceive the system as helpful to planning future scenarios (7%, *n*=6). Each Directorate indicated agreement of the use of the system to planning future scenarios: DSPD (37%, *n*=6); PD (79%, *n*=11); MH (60%, *n*=24); LD (55%, *n*=6) and WS (50%, *n*=3). Only Mental Health indicated disagreement to the use of this portion of the document (10%, *n*=4).

Figure 4.2.8. Use of the SCJ: Risk for Planning Future Scenarios



4.2.8 The SCJ: Risk helped plan future scenarios.
Proportion of responses by Directorate. Impementation phase only

4.3.3 Summary of Results

Pilot

SCJ: Risk system was regarded positively by clinical teams in terms of its usefulness. The significant majority of respondents logged the system as useful overall (96%, *n*=42); helpful to clinical teams when making and documenting risk related decisions (96% *n*=42); useful in documenting requirements from the Tilt security review (96%, *n*=42); useful to constructing a risk management plan (92%); useful to informing clinical practice (96%, *n*=42); useful to informing patient care (80%, *n*=36); and in accurately assessing a patients risk (72%, *n*=32).

Implementation

A similar trend was observed during the implementation phase, with the SCJ: Risk system perceived positively. Almost all clinical team members indicated strong agreement or agreement that the system was useful overall (90%, *n*=78); assisted clinical team members make and document risk decisions (87%, *n*=75); facilitated the documentation of the Tilt security requirements (78%, *n*=68); allowed the effective construction of risk management plans (78%, *n*=68), informed clinical practice (72%, *n*=62); accurately assessed a patients risk (60%, *n*=62) and (in addition) helped plan future scenarios (70%, *n*=61).

4.4 Usability of the SCJ: Risk System - Was the System Seen As Useable?

User satisfaction of the SCJ: Risk system was investigated.

4.4.1 Research Questions

Two areas related to user satisfaction were investigated following the pilot and implementation phase:

3.1. Was the SCJ: Risk more user-friendly than previous risk assessments?

3.2. Was it feasible for the clinical team to review the SCJ: Risk for each patient every three months?

Two additional questions were posed at the time of implementation:

3.2.1. Was it feasible for the clinical team to review the SCJ: Risk for each patient every twelve months?

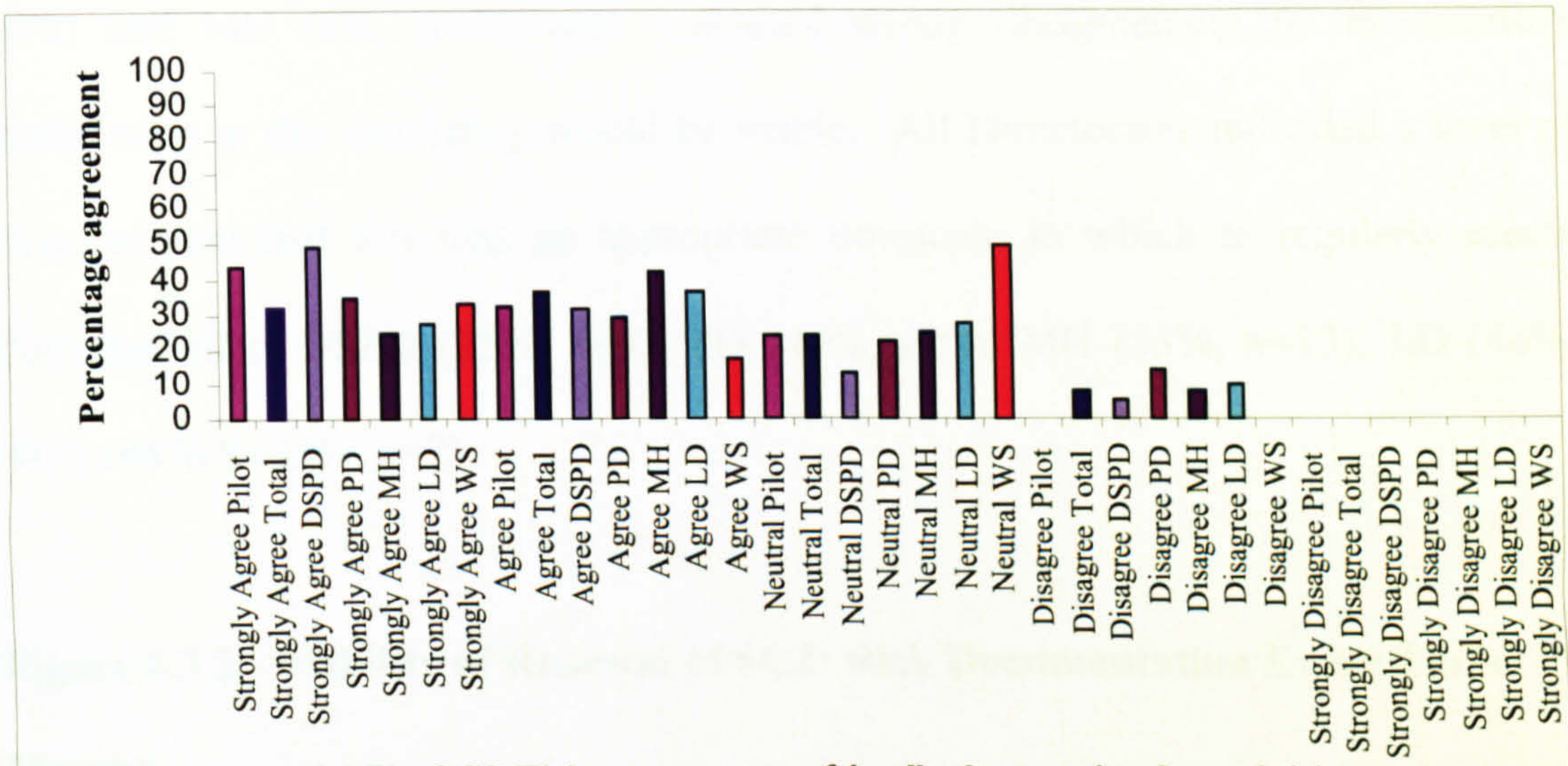
3.2.2. Should the SCJ: Risk be reviewed every three months if a patient was identified as high- risk?

4.4.2 Results

Table C3, Appendix 2.4 details the number and proportion of responses in relation to usability of the SCJ: Risk system.

3.1. Following the pilot phase, just over three quarters (76%, *n*=34) of respondents were resolute that the SCJ: Risk was more user-friendly than previous risk assessment systems (44%, *n*=20 strongly agreed; 32%, *n*=14 agreed). The remaining clinical team members were neutral in their opinion. A similar trend was observed following implementation with sixty-eight per cent in agreement (of whom 32%, *n*=28 strongly agreed and 36%, *n*=31 agreed). Twenty-four per cent were neutral (*n*=21). Eight per cent of respondents following implementation disagreed that the system was more user-friendly than previously used risk assessment systems (*n*=7), compared with no such opinion following the pilot phase. The majority of respondents within DSPD and PD indicated strong agreement to the usability of the system (50%, *n*=8; 35%, *n*=5). Two Directorates indicated agreement: MH (42%, *n*=17) and LD (36%, *n*=4). Women's Service's mode response was neutral (50%, *n*=3). A smaller number and proportion of respondents who did not find the system to be user-friendly were present within four Directorates: DSPD (6%, *n*=1); PD (14%, *n*=2); MH (8%, *n*=3); LD (10%, *n*=1).

Figure 4.3.1. User Friendliness of SCJ: Risk Documentation Compared to Other Systems Implemented Throughout the Hospital

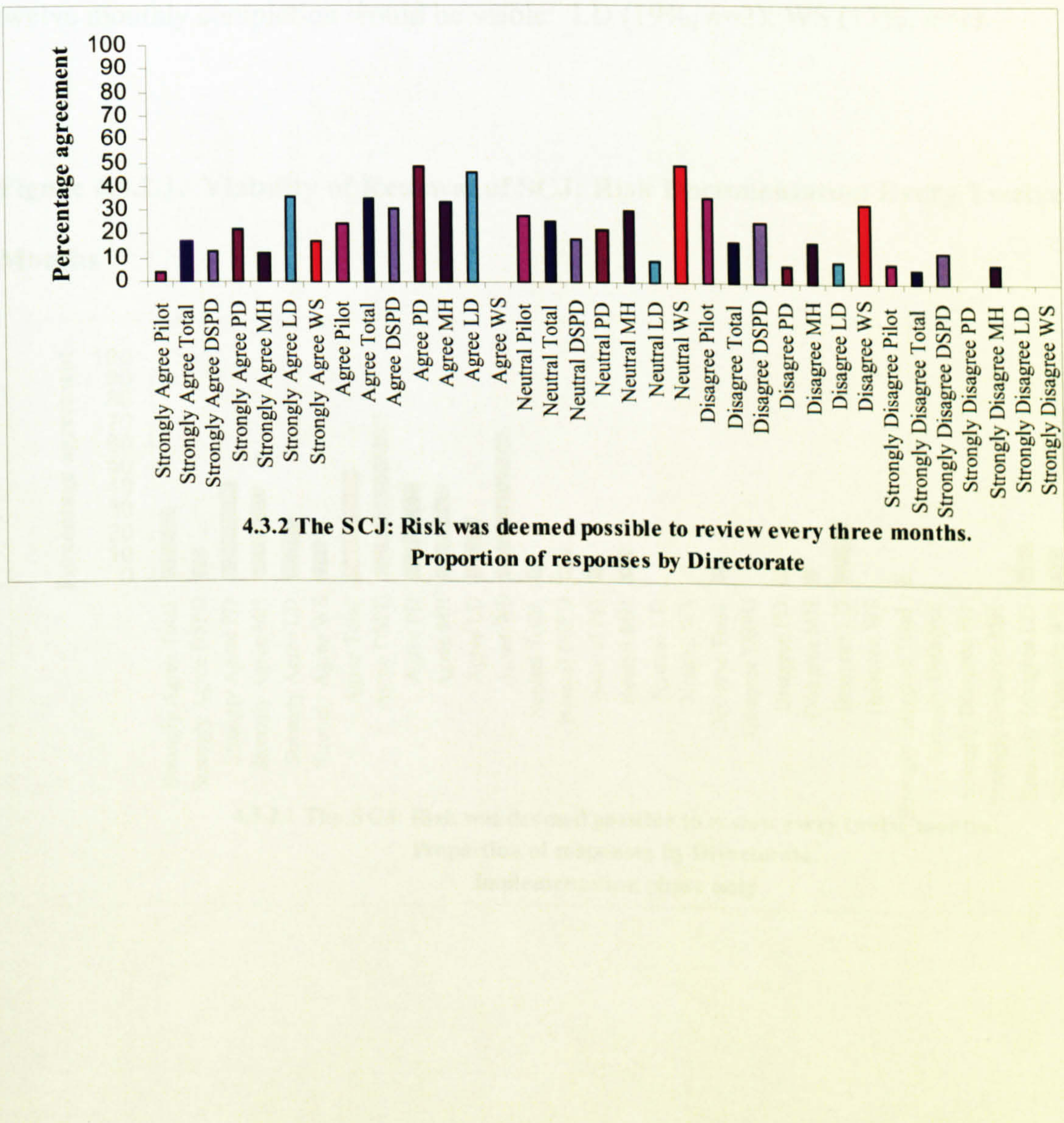


4.3.1 The SCJ: Risk was more user-friendly than previously used risk assessment systems. Proportion of responses by Directoratee

3.2. A minority of individuals participating in the pilot phase strongly agreed that it was feasible for the clinical team to review the SCJ: Risk for each patient every three months (4%, *n*=2). Level of strong agreement increased at the time of implementation (17%, *n*=15). A greater proportion of respondents indicated agreement that this frequency of renewal was viable (24%, *n*=11 following the pilot; 35%, *n*=30 following implementation). Similar levels of neutral opinion were observed at the two time periods (28%, *n*=13 (pilot) and 25%, *n*=22 (implementation)). Following the pilot phase, a total of forty-four per cent contested that it was viable to renew each patient every twelve weeks during clinical team meetings (36%, *n*=16 disagreed; 8%, *n*=3 strongly disagreed). After full implementation of the system, a total of twenty-three per cent of respondents disagreed (17%, *n*=15 strongly disagreed; 6%, *n*= 5). Completion of documentation every three months was therefore seen as more feasible following the implementation, but was still perceived as problematic by just under a quarter of

clinical team members. The Directorates for whom completion of documentation every twelve weeks was considered the most problematic were those of DSPD (13%, *n*=2) and MH (8%, *n*=3), who indicated strong disagreement to an assertion completion at this frequency would be viable. All Directorates indicated a level of disagreement that this was an appropriate timescale in which to regularly renew documentation: DSPD (25%, *n*=4); PD (49%, *n*=7); MH (33%, *n*=13); LD (46%, *n*=5) and WS (33%, *n*=2).

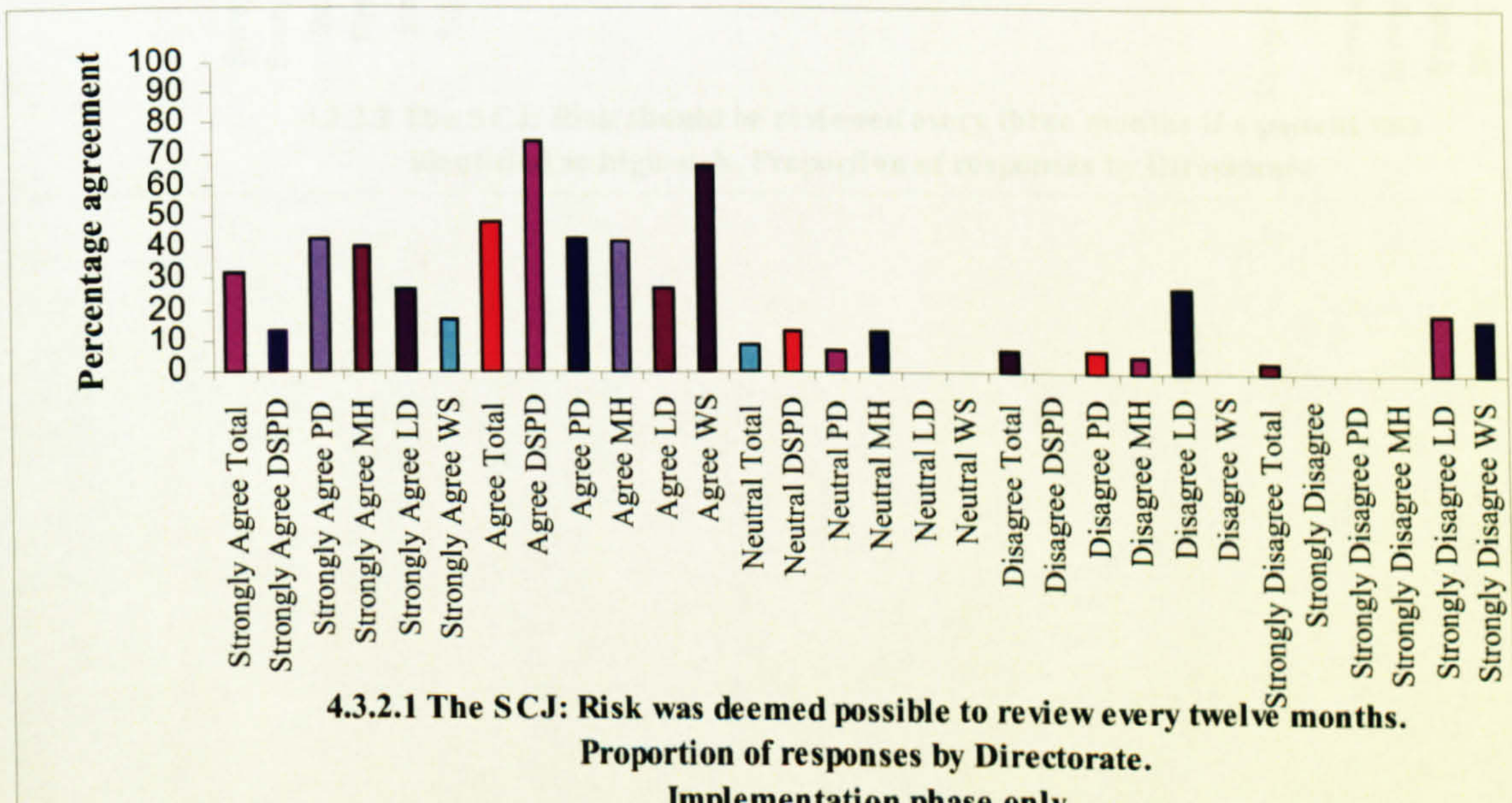
Figure 4.3.2. Viability of Renewal of SCJ: Risk Documentation Every Three Months



4.3.2 The SCJ: Risk was deemed possible to review every three months. Proportion of responses by Directorate

3.2.1. Following the implementation phase, the majority of respondents asserted that it was feasible for the clinical team to review the SCJ: Risk for each patient every twelve months (32%, *n*=28 strongly agreed, 48%, *n*=42 agreed). Eleven per cent disagreed that this frequency of completion was viable (7%, *n*=6 disagreed; 4%, *n*=3 strongly disagreed). All Directorates indicated agreement that a twelve month completion rate was viable: DSPD (74%, *n*=12); PD (43%, *n*=6); MH (42%, *n*=17); LD (27%, *n*=3); WS (66%, *n*=17). Proportions of respondents within three Directorates indicated disagreement that this timeframe would be viable: PD (7%, *n*=1); MH (5%, *n*=2) and LD (27%, *n*=3). The Learning Disability and Women's Service Directorates indicated strong disagreement to a proposal that twelve monthly completion would be viable: LD (19%, *n*=2); WS (17%, *n*=1).

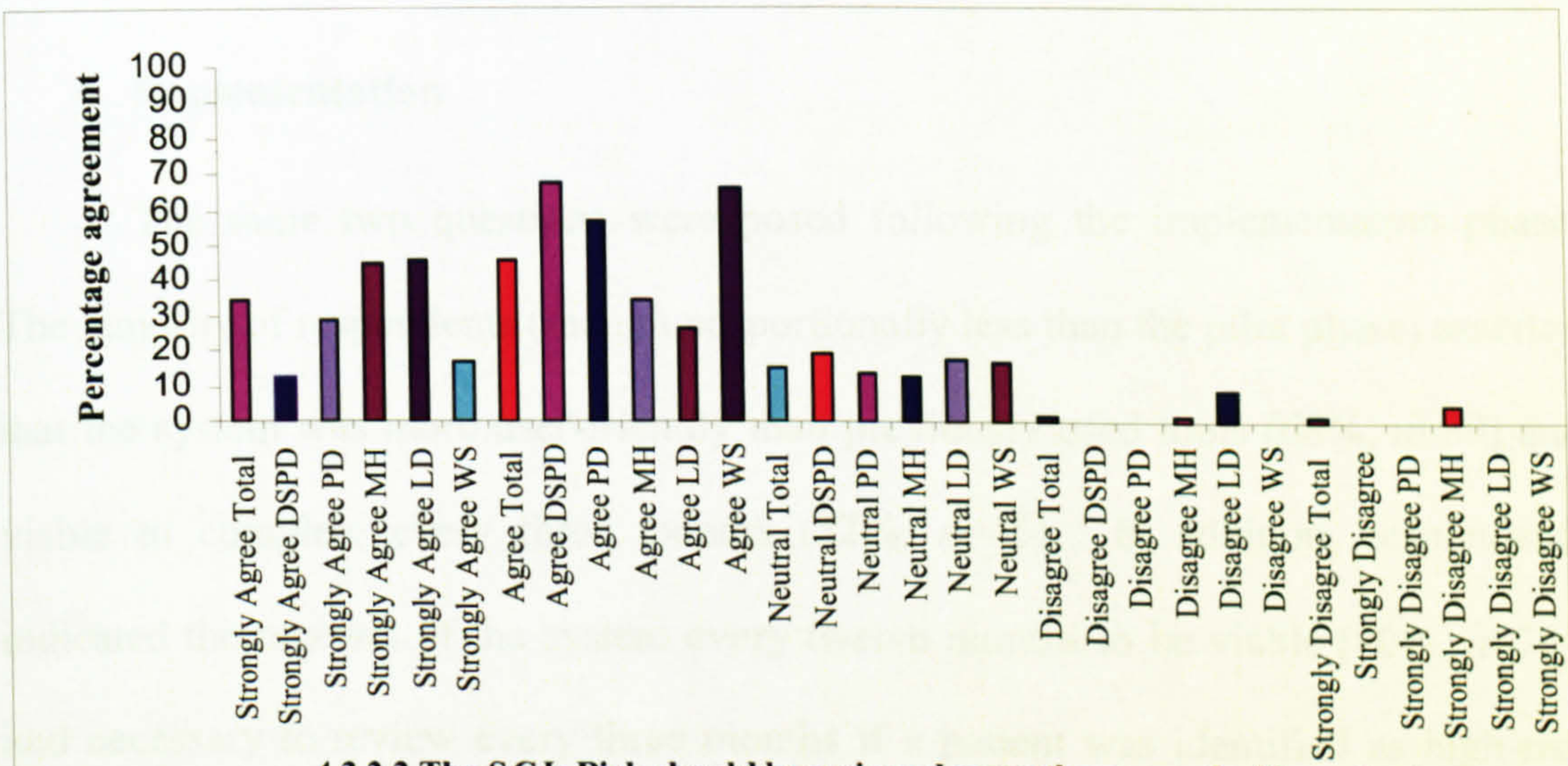
Figure 4.3.2.1. Viability of Renewal of SCJ: Risk Documentation Every Twelve Months



4.3.2.1 The SCJ: Risk was deemed possible to review every twelve months.
Proportion of responses by Directorate.
Implementation phase only

3.2.2. Following implementation, eighty-one per cent of respondents asserted that the SCJ: Risk should be reviewed every three months if a patient was identified as high- risk (35%, *n*=30 strongly agreed, 46%, *n*=40 agreed). A small proportion disagreed (2%, *n*=2 disagreed; 2%, *n*=2 strongly disagreed). The remaining proportion indicated a neutral opinion (15%, *n*=13).

Figure 4.3.2.2. Importance of Renewal of Documentation if Patient Deemed High-Risk



4.3.2.2 The SCJ: Risk should be reviewed every three months if a patient was identified as high-risk. Proportion of responses by Directorate

4.4.3 Summary of Results

Pilot

User satisfaction of the SCJ: Risk system was investigated. The system was perceived to be more user-friendly than previously implemented risk assessment systems (76%, *n*=34). Responses indicated that renewal of the system for each patient at a frequency of every three months was not viable (28%, *n*=13 attested it was feasible).

Implementation

The same two questions were posed following the implementation phase. The majority of respondents (though proportionally less than the pilot phase) asserted that the system was more user-friendly than previously used tools (68%, *n*=59) and viable to complete every three months (52%, *n*=45). In addition, respondents indicated the renewal of the system every twelve months to be viable (80%, *n*=70), and necessary to review every three months if a patient was identified as high-risk (80%, *n*=70).

4. 5 Team Functioning and Multidisciplinary Working

Multidisciplinary decision-making was a critical component of the system of structured clinical judgement. It was important to understand if clinical teams thought it important to complete the document in a multi-disciplinary format, and to investigate if all components of the system were discussed within a multi-disciplinary team (MDT) forum.

Questions pertaining as to whether the system has improved MDT working were investigated, as were perceptions of an individual's contribution, motivation of their clinical team, and opinion as to whether an agreed management plan resulting from the system was subsequently implemented.

4.5.1 Research Questions

The following research questions were investigated:

If the SCJ: Risk system…:

4.1. s*hould* be completed in a multi-disciplinary format (all components)

4.2. was completed in a multi-disciplinary format (in the respondents clinical team)

4.3. improved MDT working

4.4. facilitated the respondent in feeling as though they made a positive contribution to the risk decision-making process

4.5. encountered a resistance within the clinical team (respondents were invited to provide further comments)

4.6. and the associated risk management plan agreed during MDT discussions was being implemented for each patient assessed

Questions 4.1, 4.4, 4.5 and 4.6 were presented following the pilot phase only, and were not included in the post implementation evaluation survey. Questions 4.2 and 4.3 were presented to both pilot and implementation respondents.

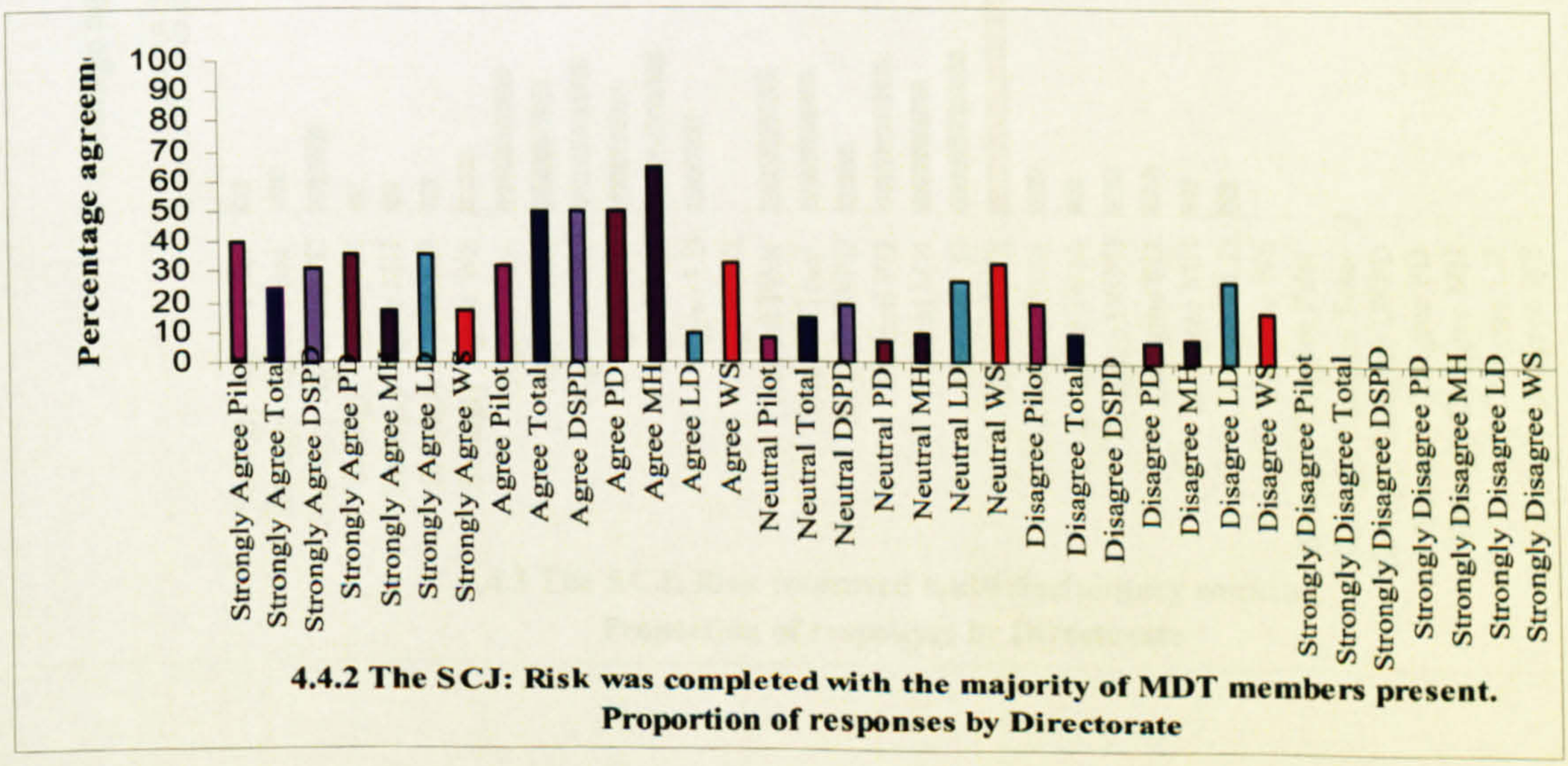
4.5.2 Results

A detailed breakdown of the number and proportion of responses to questions posed in relation to team functioning and multidisciplinary working may be found in Table C4, Appendix 2.4.

4.1. Eighty-eight per cent of respondents following pilot of the system affirmed that the SCJ: Risk system should be completed in a multidisciplinary format. (52%, *n*=24 strongly agree; 36%, *n*=16 agree). The remaining twelve per cent had a neutral opinion (*n*=5).

4.2. Seventy-two per cent of respondents involved in the piloting of the system confirmed that all components of the SCJ: Risk were completed in a multidisciplinary format (*n*=32). Eight per cent indicated a neutral opinion (*n*=4). Twenty per cent of respondents disagreed (*n*=9). Similar responses were observed following implementation where three quarters agreed (25%, *n*=22 strongly agreed, 50%, *n*=44 agreed). Fewer respondents disagreed when compared to the pilot phase (10%, *n*=8). The mode response between all Directorates indicated agreement that MDT working was apparent during completion of SCJ: Risk documentation: DSPD (50%, *n*=8); PD (50%, *n*=7); MH (65%, *n*=26); WS (33%, *n*=2). Just over one third of respondents within the Learning Disability Directorate indicated strong agreement that MDT working was apparent (36%, *n*=4). However, respondents within the same Directorate also indicated disagreement that decisions were made within an MDT forum (27%, *n*=3 disagreed), perhaps indicative of different experiences from different clinical teams. A proportion of respondents from the three remaining Directorates indicated that SCJ: Risk discussions did not involve all MDT members: PD (7%, *n*=1); MH (8%, *n*=3); LD (27%, *n*=3).

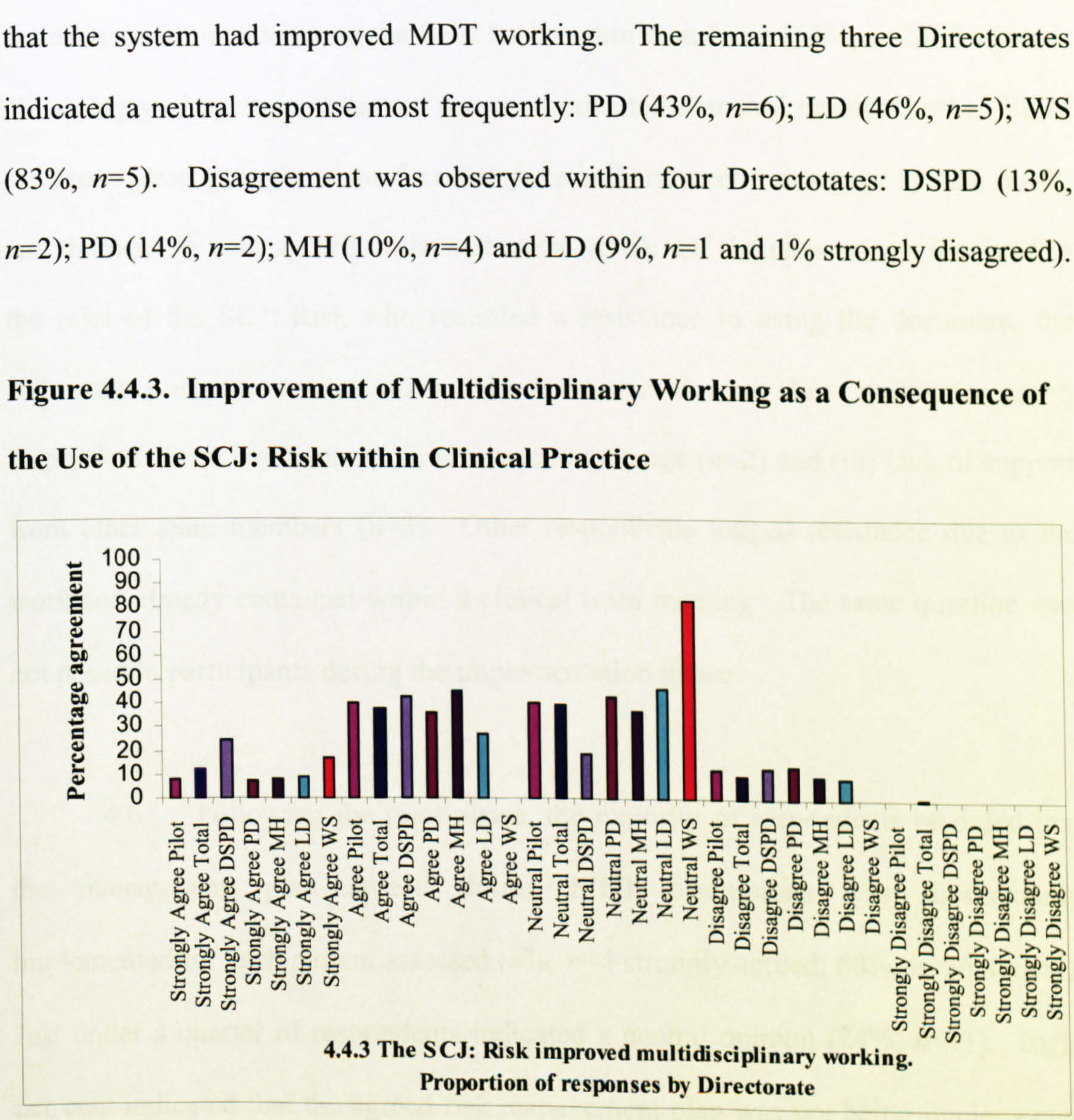
Figure 4.4.2. Completion of the SCJ: Risk by Multidisciplinary Team Members



4.4.2 The SCJ: Risk was completed with the majority of MDT members present. Proportion of responses by Directorate

4.3. Forty-eight per cent of those surveyed agreed that the SCJ: Risk had improved MDT working during the pilot phase (8%, *n*=4 strongly agreed, 40%, *n*=18 agreed). Following implementation, fifty per cent of respondents agreed with the statement (12%, *n*=10 strongly agreed, 38%, *n*=33 agreed). Twelve per cent felt that participation in the pilot phase of the SCJ: Risk had not improved MDT working (*n*=5), a similar level to that reported by implementation recipients (10%, *n*=9). Similar proportions of neutral opinion were observed at the two time periods of investigation: 40%, *n*=18 (pilot) and 39%, *n*=34 (implementation). The highest proportion of respondents within DSPD (43%, *n*=7) and MH (45%, *n*=18) agreed that the system had improved MDT working. The remaining three Directorates indicated a neutral response most frequently: PD (43%, *n*=6); LD (46%, *n*=5); WS (83%, *n*=5). Disagreement was observed within four Directotates: DSPD (13%, *n*=2); PD (14%, *n*=2); MH (10%, *n*=4) and LD (9%, *n*=1 and 1% strongly disagreed).

Figure 4.4.3. Improvement of Multidisciplinary Working as a Consequence of the Use of the SCJ: Risk within Clinical Practice



4.4.3 The SCJ: Risk improved multidisciplinary working. Proportion of responses by Directorate

4.4. Eighty-five per cent of respondents felt as though they had made a positive contribution to the SCJ: Risk decision-making process following the pilot phase (27%, *n*=12 strongly agreed; 58%, *n*=26 agreed). This indicated that the majority of respondents felt integrated into MDT discussions. Four per cent of respondents were neutral (*n*=2), and eleven per cent felt that they did not make a positive contribution to the process (7%, *n*=3 disagreed; 4%, *n*=2 strongly disagreed). This question was not posed to respondents following implementation.

4.5. Sixty-six per cent of those participating in the pilot disagreed that there was resistance to using the SCJ: Risk within their team (63%, *n*=28 disagreed; 3% strongly disagreed). Thirteen per cent indicated a neutral opinion (*n*=6). Eight per cent agreed strongly to the fact that there is resistance to using the system (*n*=4), and thirteen per cent agreed to the statement (*n*=6). Of the respondents involved in the pilot of the SCJ: Risk who recorded a resistance to using the document, the following comments were made: (i) resistance due to low motivation (*n*=5 respondents from two teams), (ii) resistance to change (*n*=2) and (iii) lack of support from other team members (*n*=3). Other respondents logged resistance due to the workload already contained within a clinical team meeting. The same question was not posed to participants during the implementation phase.

4.6. Following the pilot phase, the majority of respondents recorded that the management plan agreed during MDT discussions was subsequently implemented for each patient assessed (8%, *n*=4 strongly agreed; 60%, *n*=36 agreed). Just under a quarter of respondents indicated a neutral opinion (24%, *n*=11). Eight per cent indicated that the agreed risk management plan was not being implemented

(*n*=4). This question was not included during investigation following the implementation phase.

4.5.3 Summary of Results

Pilot

Multidisciplinary team (MDT) decision-making was a critical component of the system of structured clinical judgement. The majority of individuals involved in the pilot phase thought that the SCJ: Risk ought to be completed in an MDT forum (88%, *n*=30) and confirmed the SCJ: Risk was conducted involving the contribution of all MDT members (72%, *n*=32). Pilot of the SCJ: Risk was seen to improve MDT working (48%, *n*=22), and the majority of team members felt as though they made a positive contribution to the risk decision-making process (85%, *n*=38).

The majority of respondents within clinical teams were not resistant to using the system during the pilot phase (66%, *n*=29). However, approximately a fifth (21%, *n*=10) either agreed or strongly agreed that there was resistance. Qualitative feedback from this group suggested this may be attributable to; general resistance to change, lack of support from other team members and existing workloads already contained within a ward round.

Qualitative feedback suggested acceptance to the SCJ: Risk was facilitated by; (i) clinical teams understanding of *why* there was a need for a change in clinical practice and (ii) confidence in utilising a system that has a validated evidence-base as its foundation and the provision of help external to the team.

Implementation

Following the implementation phase, similar trends were observed for two questions posed during the pilot phase. Most respondents agreed that all components of the SCJ: Risk were completed in a multi-disciplinary format (75%, *n*=57), and half agreed that the system had improved multidisciplinary working (50%, *n*=43).

4. 6 Piloting/ Implementation and Support

It was proposed that the implementation of the project was done in a staged manner, initially through piloting the system within a limited number of wards within the hospital. The intention of the pilot was to ensure that the system worked effectively throughout each of the Directorates before full implementation.

4.6.1 Research Questions

The following research questions were investigated:

5.1. Had completion of the SCJ put a significant strain on current clinical resources?

5.2. If it was beneficial to have a regular designated time to discuss the SCJ: Risk where all MDT members were present?

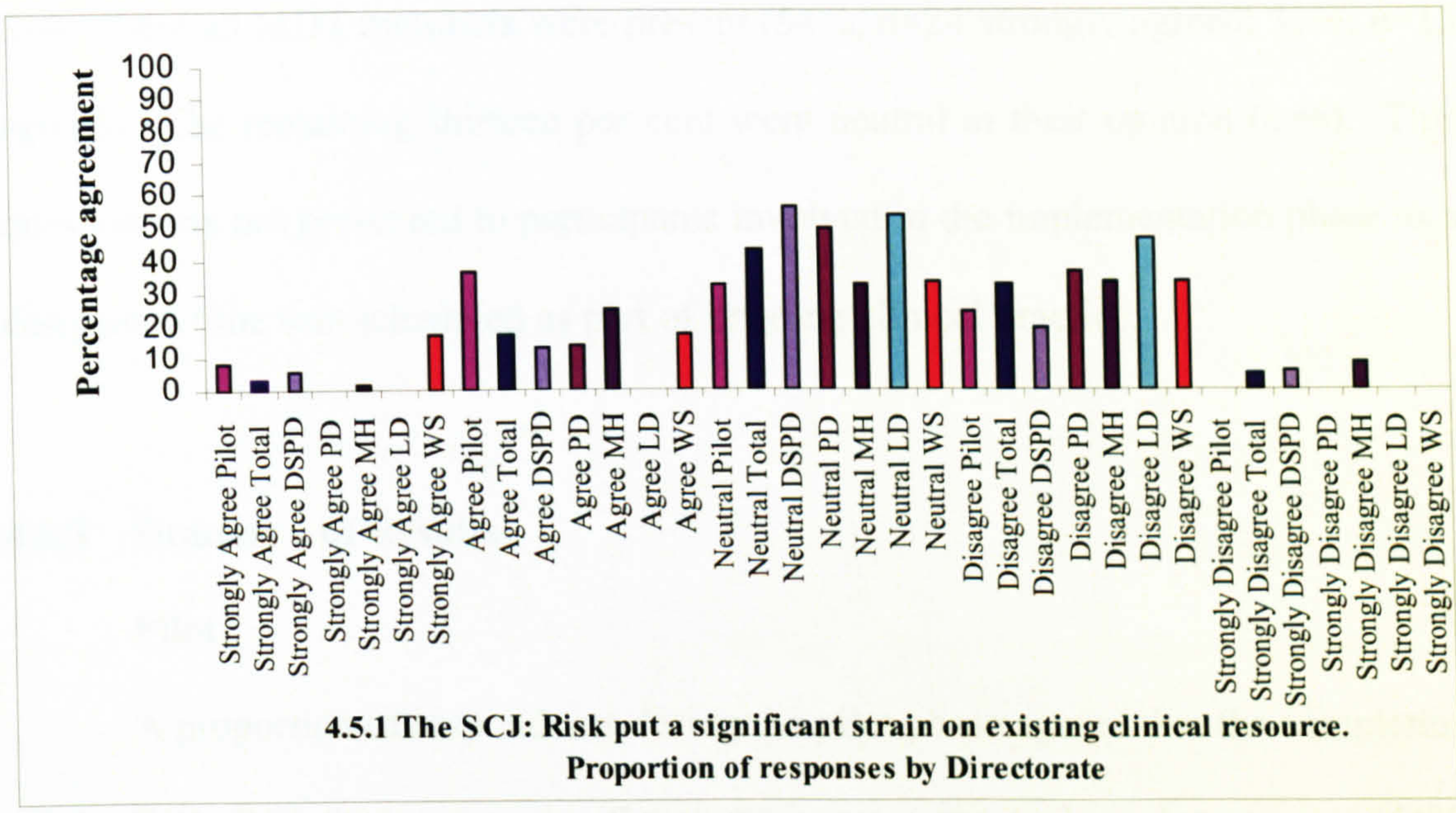
Question 5.1 was posed at both pilot and implementation phase. Question 5.2 was presented following the pilot phase only, and was excluded from the implementation phase (as regular designated times had been established as part of the implementation of the SCJ: Risk).

4.6.2 Results

Responses relating to the pilot, implementation and ongoing support of the SCJ: Risk system may be found in Table C5, Appendix 2.4, giving a breakdown of number and proportion of responses by Directorate for each question posed.

5.1. During the pilot phase forty-four per cent of the total respondents indicated that completion of the SCJ: Risk had put a significant strain on current clinical resources (8%, *n*=4 strongly agreed; 36%, *n*=16 agreed). Fewer respondents agreed to the statement that existing clinical resources had been strained due to the use of the SCJ: Risk at the time of implementation (3%, *n*=3 strongly agreed, 17%, *n*=15 agreed). However a fifth of all clinical team respondents still indicated a strain on current clinical resources, despite extra allocation of resources following the pilot phase. More neutral responses were observed during the implementation phase (43%, *n*=37), compared to the pilot phase (32%, *n*=14). Twenty-four per cent did not think that the system had put a significant strain on resources after the pilot phase (*n*=11 disagreed), and thirty-seven per cent did not perceive additional impact on current resources (32%, *n*=28 disagreed; 5%, *n*=4 strongly disagreed). Neutral responses were most frequently recorded within the following Directorates: DSPD (56%, *n*=9); PD (50%, *n*=7); LD (54%, *n*=6) and WS (33%, *n*=2). Indication was given from all Directorates that the system had not put a significant strain on existing clinical resources: DSPD (19%, *n*=3); PD (36%, *n*=5); MH (33%, *n*=13); LD (46%, *n*=5) and WS (33%, *n*=2). The strongest assertion that no additional burden was observed as a result of implementation of the SCJ: Risk was observed within DSPD (6%, *n*=1) and MH (8%, *n*=3).

Figure 4.5.1. Impact of Completion of SCJ: Risk Documentation on Existing Clinical Resources



4.5.1 The SCJ: Risk put a significant strain on existing clinical resource. Proportion of responses by Directorate

Qualitative analysis of free text boxes indicated that respondents suggested the strain on existing clinical areas to be attributed to two areas. The first strain was that of time, and was summarised by one respondents comment: "In ward round there is little time to discuss it (the SCJ: Risk) on top of immediate clinical issues" (see related question 5.2 below). The second was concern over replication of effort due to another system of risk assessment specifically for nursing staff introduced to the hospital at a similar time (TRIMS). One participant logged: "Nurses will also be required to carry out TRIMS".

5.2. Eighty-seven per cent of respondents involved in the pilot phase indicated that it was beneficial to have a regular designated time to discuss the SCJ: Risk where all MDT members were present (54%, *n*=24 strongly agreed; 33%, *n*=15 agreed). The remaining thirteen per cent were neutral in their opinion (*n*=6). This question was not presented to participants involved in the implementation phase as a designated time was scheduled as part of ongoing clinical practice.

4.6.3 Summary of Results

Pilot

A proportion of respondents during the pilot phase agreed that the completion of the SCJ: Risk had put a significant strain on current clinical resources (44%, *n*=20), and the majority (87%, *n*=39) indicated that a regular designated time for SCJ: Risk discussions would be beneficial.

Implementation

A significantly smaller proportion of respondents reported strain on clinical resources following implementation of the SCJ: Risk (20%, *n*=18).

4.7 Additional Resources, Policies, Procedures and Nominated Contacts

Following respondents' experiences of pilot of the SCJ: Risk, it was anticipated that clinical teams would require additional resources to successfully document the system. Individuals were asked to identify the resources they required, and responses were collated. Respondents were asked if they agreed that the system should be embedded in policy. Clinical team members were also asked their opinion as to the usefulness of a coordinator external to the team. An additional question thought relevant to the implementation phase related to opinion as to whether a patient should have a provisionally completed SCJ: Risk document before admission.

4.7.1 Research Questions

The areas of investigation in these areas were as follows:

6.1. Were additional resources necessary to successfully document the SCJ risk system?

6.2. Should the SCJ: Risk system be embedded in policy?

6.3. Was it useful to have a contact person (SCJ: Risk coordinator external to the team) to assist clinical team implementation and assist clinical risk decisions.

6.4. Was it useful for clinical teams to have a nominated contact(s) to liaise with the SCJ: Risk project manager?

6.5. Should the SCJ: Risk be provisionally completed before a patient's admission?

Questions 6.1 and 6.2 were not included in the survey at the time of implementation (additional resources had been allocated following the pilot phase, and a policy document had been implemented). Questions 6.3 and 6.4 were presented at both phases, and question 6.5 was introduced as an additional area for investigation following the implementation phase.

4.7.2 Results

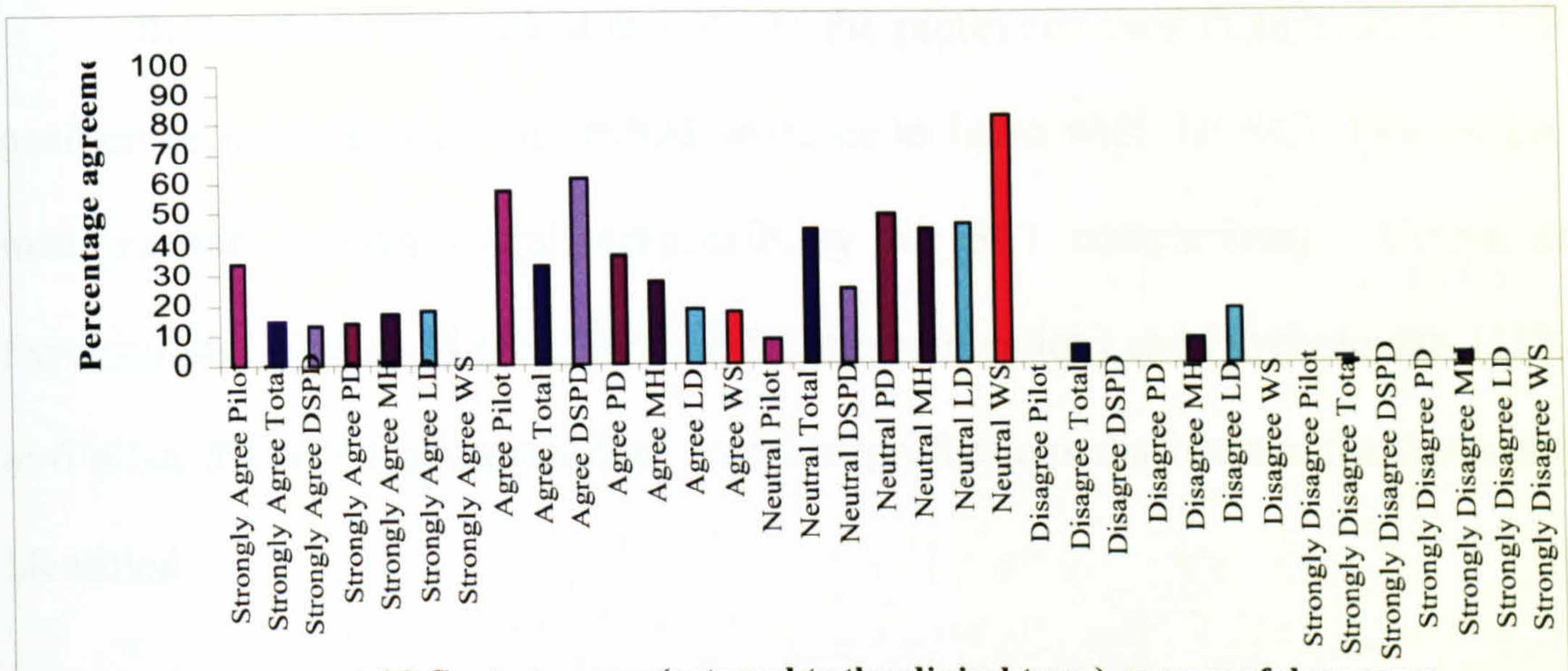
Table C6, Appendix 2.4 illustrates the proportion and number of responses for questions related to additional resources, policies, procedures and nominated contacts.

6.1. Over half of those surveyed following the pilot phase agreed that additional resources were necessary to successfully document the SCJ: Risk system (52%, *n*=23). A smaller proportion disagreed (12%, *n*=5), with the remaining proportion indicating a neutral response (36%, *n*=17). This question was not included during the implementation phase.

6.2. Over three quarters of respondents surveyed after participation in the pilot phase indicated that the system should be embedded in policy (29%, *n*=13 strongly agreed; 45%, *n*=20 agreed). Twenty-two per cent gave a neutral response (*n*=10), and four per cent disagreed (*n*=2). In preparation for the implementation phase, a policy and procedure document was subsequently adopted within clinical practice, so this question was not presented during the second phase of the investigation.

6.3. Ninety-two per cent of respondents involved in the pilot phase of the system affirmed that it was useful to have a contact person (SCJ: Risk coordinator external to the team) to assist clinical team implementation and clinical risk decision-making (34%, *n*= 15 strongly agreed, 58%, *n*=26 agreed). Fewer respondents found an external contact to be of use during the implementation phase (15%, *n*=13 strongly agreed; 33%, *n*=29 agreed). A greater proportion of respondents during the implementation phase logged a neutral response (45%, *n*=39), compared to the pilot phase (8%, *n*=4). A minority did not find an external contact to be a useful resource (6%, *n*=5 disagreed, 1%, *n*=1 strongly disagreed). Neutral responses were most frequently observed across four Directorates: PD (50%, *n*=7); MH (45%, *n*=18); LD (46%, *n*=5); WS (83%, *n*=5). Mental Health and Learning Disability Directorates disagreed that a nominated contact was a useful resource (8%, *n*=3 and 18%, *n*=2). No respondent strongly disagreed from any directorate. The Dangerous and Severe Personality Unit indicated that a nominated contact was useful (62%, *n*=10). When responses of agreement or strong agreement were summed, the following trends between Directorates were observed asserting the use of a nominated contact: DSPD (75%, *n*=12); PD (50%, *n*=7); MH (44%, *n*=18); LD (36%, *n*=4); WS (17%, *n*=1).

Figure 4.6.3. Usefulness of Contact Person (External to Clinical Team)

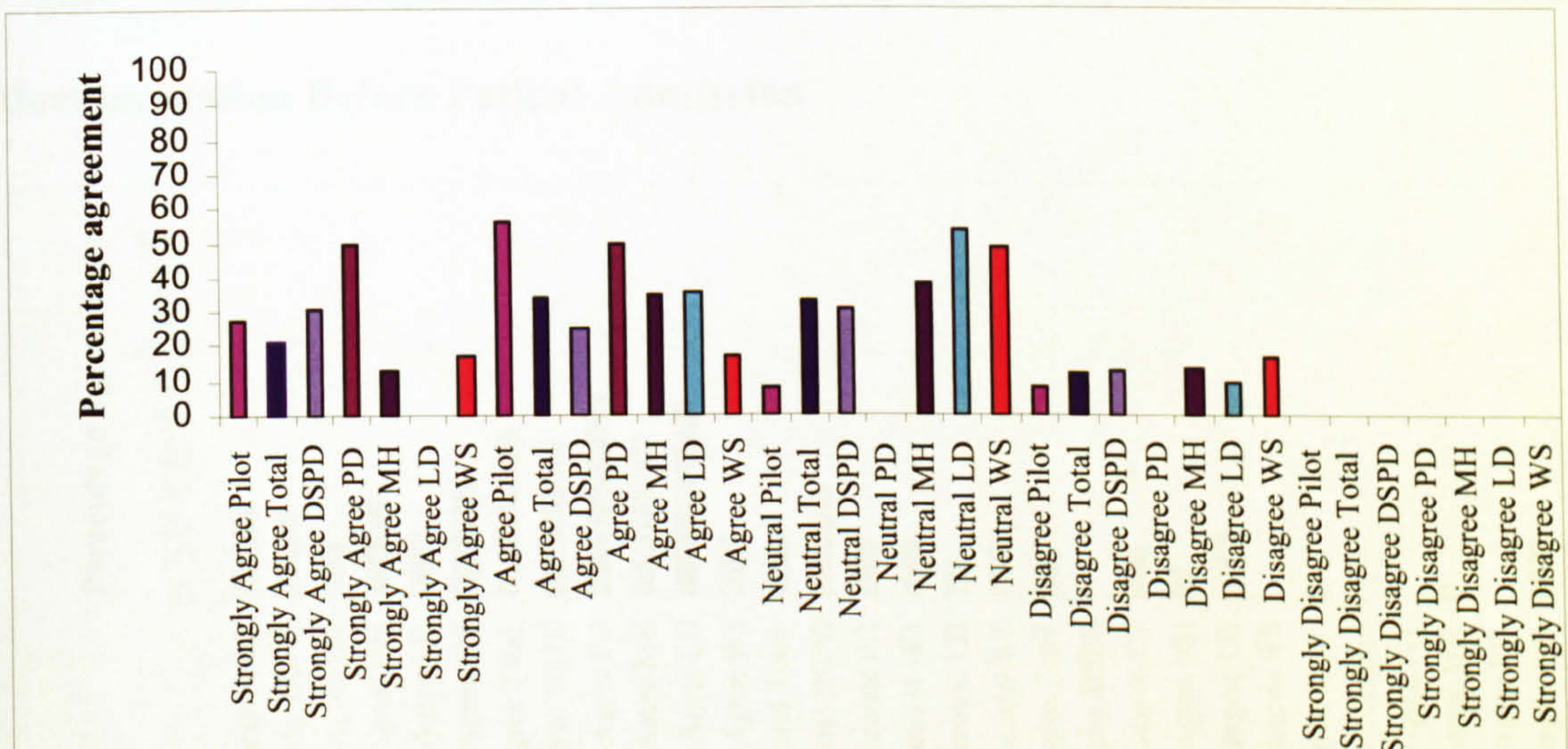


4.6.3 Contact person (external to the clinical team) was a useful resource. Proportion of responses by Directorate

6.4. Eighty two per cent of respondents thought it was useful for clinical teams to have a nominated contact(s) to liaise with the SCJ: Risk team during the pilot phase (28%, *n*=12 strongly agreed; 56%, *n*=25 agreed). Twenty-seven per cent fewer respondents found a liaison representative to be useful during the implementation phase (21%, *n*=18 strongly agreed; 34%, *n*=30 agreed). A greater proportion indicated a neutral response at the time of implementation compared to the pilot phase (33%, *n*=29 and 8%, *n*=4 respectively). A slightly higher proportion of clinical team members surveyed indicated that a nominated contact was not a useful resource at the time of implementation (12%, *n*=10) compared to investigation following the pilot phase (8%, *n*=4). The most frequent response from three Directorates was indicative of neutral opinion as to the usefulness of a nominated contact: MH (38%, *n*=15); LD (54%, *n*=6); WS (50%, *n*=3). Summing the level of agreement from 'strongly agree' and 'agree' statements the following Directorates perceived the external contact to be of benefit at the time of implementation: DSPD (56%, *n*=9); PD (100%, *n*=14); MH (48%, *n*=19)' LD (36%, *n*=4) and WS (33%, *n*=2).

Respondents were asked to indicate the profession they thought should hold position of nominated contact (MDT member to liaise with the SCJ: Risk project manager and to take overall responsibility for SCJ completions). Consultant Psychiatrists (89%, n=39 pilot; 92%, *n*=80 implementation) and Psychologists (11%, *n*=6 pilot; 8% *n*=7 implementation) were the professions that were most frequently identified.

Figure 4.6.4. Usefulness of Directorate Representative with the SCJ: Risk Team

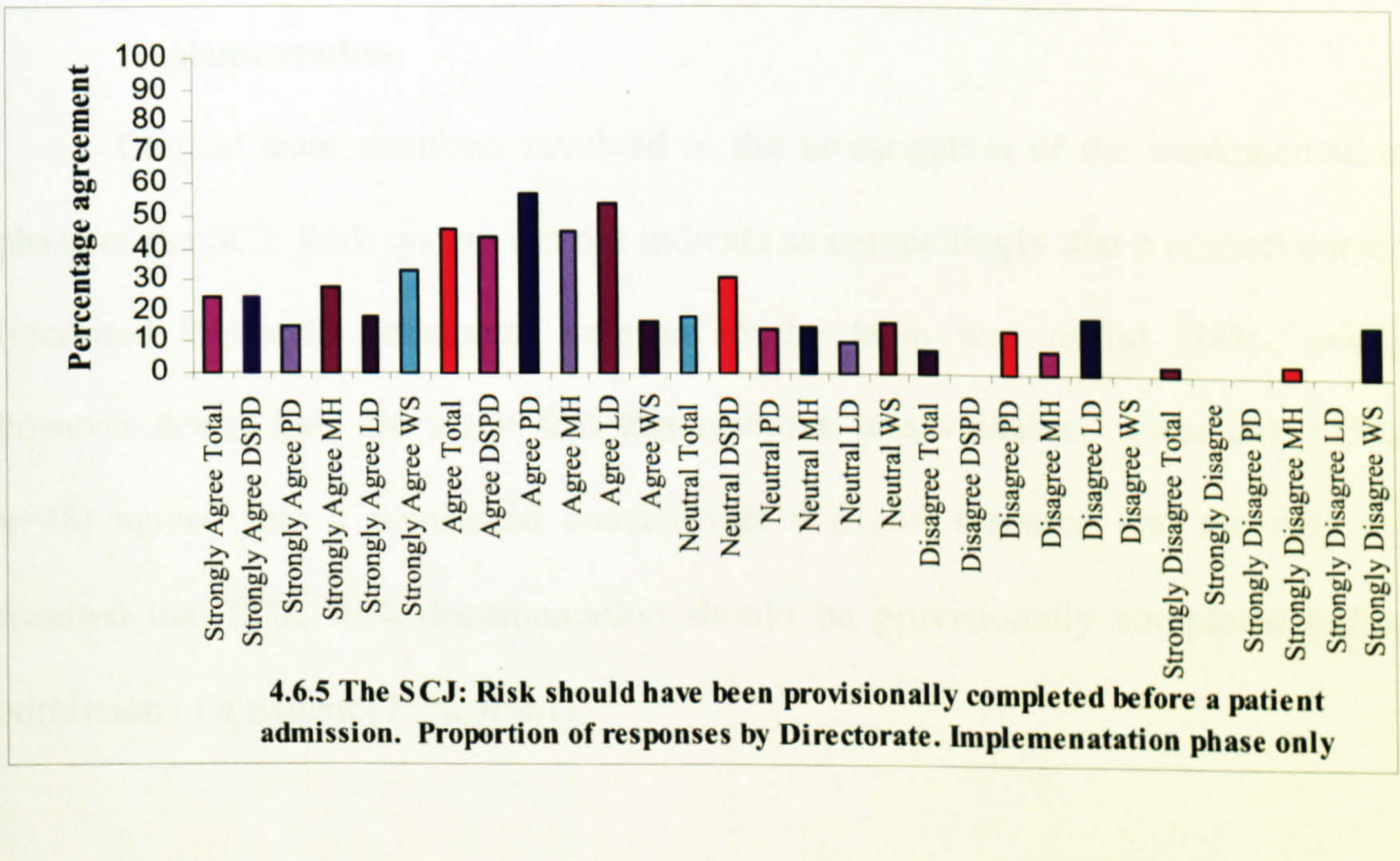


4.6.4 Directorate representative was seen as a useful liaison link with the SCJ:Risk team. Proportion of responses by Directorate

6.5. The majority of respondents surveyed following the implementation of the system indicated that SCJ: Risk documentation should be provisionally completed before a patient was admitted (25%, *n*=21 strongly agreed; 46%, *n*=40 agreed). A small proportion of eleven per cent disagreed (8%, *n*=7 disagreed; 3%, *n*=3 strongly disagreed), with the remaining eighteen per cent indicating a negative response (*n*=16). The highest proportion of response within this question was that of agreement: DSPD (44%, *n*=7), PD (57%, *n*=8); MH (54%, *n*=8). The highest

proportion of response within Women's Service was evenly split between strong agreement (33%, *n*=2) and neutral opinion (33%. *n*=2). Strong agreement for the provisional completion of documentation before a patient's admission was asserted by the following proportions of respondents within Directorates: DSPD (25%, *n*=4); PD (15%, *n*=2); MH (28%, *n*=11); LD (18%, *n*=2) and WS (33%, *n*=2). Respondents within three Directorates indicated disagreement to this procedure: PD (14%, *n*=2); MH (8%, *n*=3, and 4%, *n*=2 strong disagreement); LD (18%, *n*=2) and WS (17%, *n*=1 strong disagreement).

Figure 4.6.5. Proportion of Agreement for Completion of SCJ: Risk Documentation Before Patient Admission



4.6.5 The SCJ: Risk should have been provisionally completed before a patient admission. Proportion of responses by Directorate. Implemenatation phase only

4.7.3 Summary of Results

Pilot

Responses from the pilot phase indicated that additional resources were necessary to ensure the successful implementation of the SCJ: Risk (52%, *n*=23). Participants indicated a preference for the system to be embedded in policy (74%, *n*=33). A contact person (the current author) trained to assist clinical team implementation and assist clinical risk decisions was seen as a useful resource (92%, *n*=41). The majority of respondents (84%, *n*=37) thought that a nominated contact person within each clinical team (or Directorate Representative) was a useful liaison link with the SCJ: Risk manager.

Implementation

Clinical team members involved in the investigation of the implementation phase of the SCJ: Risk system did not indicate as compellingly that a contact person (recruited Research Assistants) external to the team was useful (48%, *n*=42), however nearly half did assert that this resource was valuable. Over half (55%, *n*=48) agreed that a nominated contact was a useful resource and the majority asserted that SCJ: Risk documentation should be provisionally completed before admission of a patient (71%, *n*=61).

4.8 Ongoing Evaluation of the SCJ: Risk system and Access of Electronic Records

Clinical teams were asked their opinion to ascertain if clinical teams thought evaluation of the SCJ: Risk system was an essential component to the development of the system.

4.8.1 Research Questions

An investigation was conducted to ascertain if it was important to respondents that…:

7.1. elements of the SCJ were evaluated

7.2. the outcomes of evaluations were communicated back to clinical teams

Question 7.1 was not posed at the time of implementation, however question 7.2 was presented to both time phases.

Clinical team members at both pilot and implementation were encouraged to make additional comments relating to…:

7.3. any changes they would make to the system

7.4. any other comments

As part of the ongoing evaluation of use of the SCJ: Risk as part of ongoing clinical practice, respondents (following the implementation phase only) were also asked to identify their use of the computerised system of recording SCJ: Risk entries via the hospital's electronic recording system (RiO) by means of indicating responses to the following questions:

7.5. frequency of access of patient case notes via RiO

7.6. frequency of access within RiO to review SCJ: Risk records

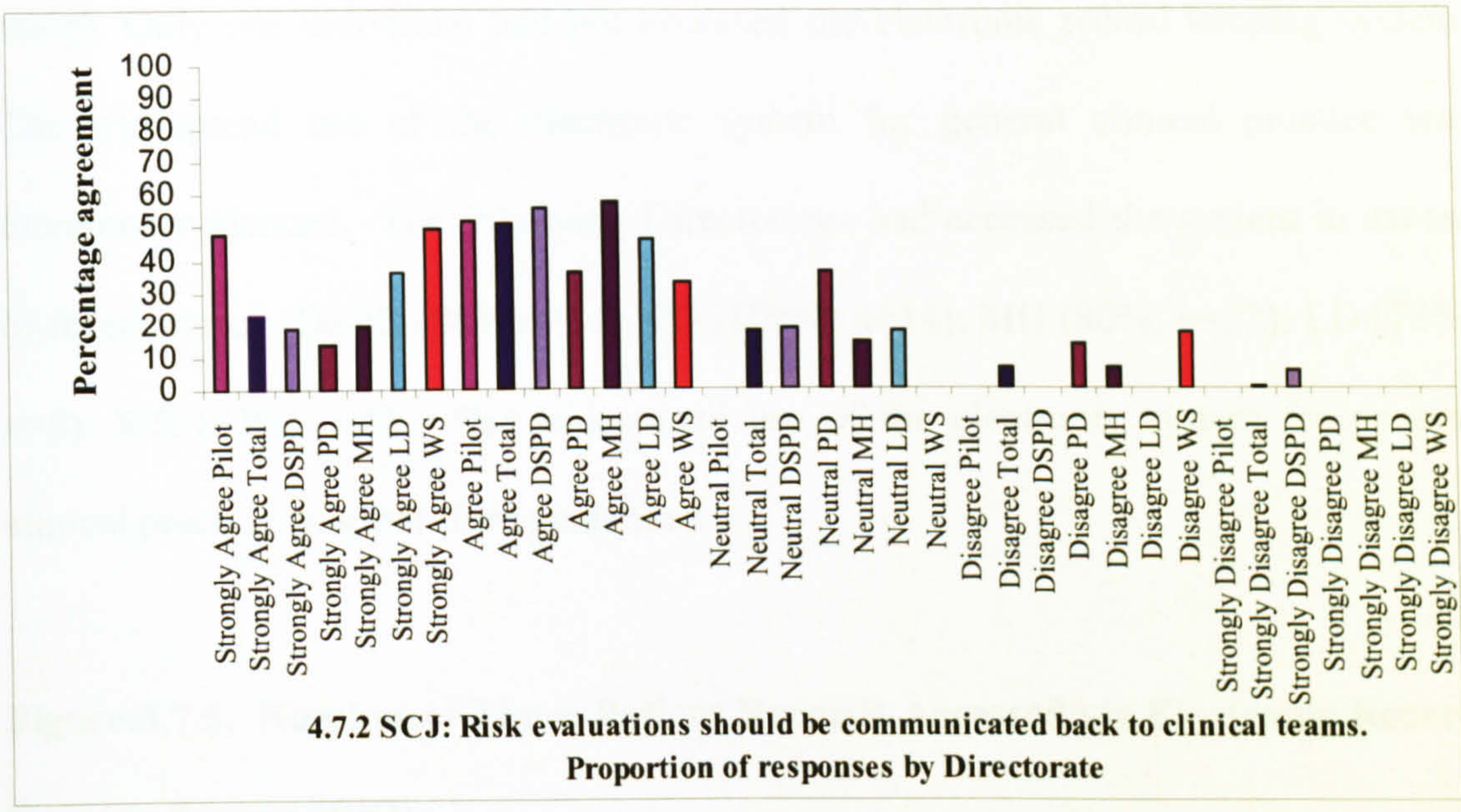
4.8.2 Results

Table C7, Appendix 2.4 details the distribution of responses to each question relevant to the ongoing evaluation and access of electronic records (displayed by Directorate).

7.1. One hundred per cent of those surveyed during the pilot phase thought it important to evaluate elements of the SCJ: Risk. (42%, *n*=19 strongly agreed; 58%, *n*=26 agreed). This question was posed to pilot respondents only.

7.2. All respondents involved in the pilot project affirmed that it would be important that the outcomes of evaluations are communicated back to clinical teams (48%, *n*=21 strongly agreed, 52%, *n*=24 agreed). Participants of the implementation investigation indicated agreement (23%, *n*=20 strongly agreed, 51%, *n*=44 agreed). A small proportion disagreed (7%, *n*=6; 1%, *n*=1 strongly) with the remaining proportion indicating a neutral opinion (18%, *n*=16). The most frequent response was that of agreement between Directorates: DSPD (56%, *n*=9); PD (36%, *n*=5); MH (58%, *n*=23); LD (46%, *n*=5). Strong agreement was asserted by the following proportions between Directorates: DSPD (19%, *n*=3); PD (14%, *n*=2); MH (20%, *n*=8); LD (36%, *n*=4) and WS (50%, *n*=3).

Figure 4.7.2. Proportion of Agreement that SCJ: Risk Evaluations Should be Communicated Back to Clinical Teams



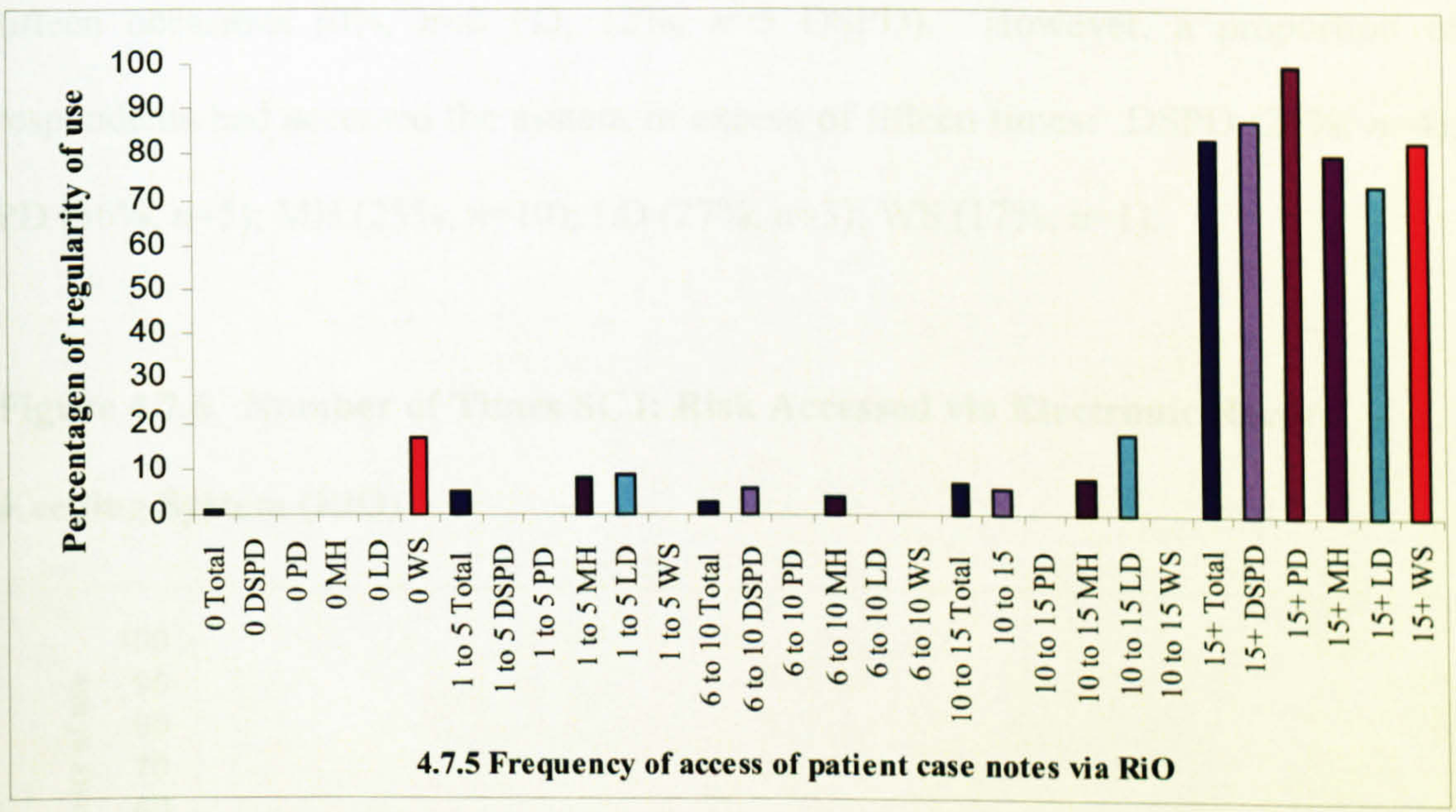
4.7.2 SCJ: Risk evaluations should be communicated back to clinical teams. Proportion of responses by Directorate

7.3. When invited to note the changes an individual would make to the system following the pilot phase, the following useful responses were recorded; (a) scenario plans may be helpful, (b) add in a way to rate offence paralleling behaviours in current / previous presentations – may be important in making decisions about transfer / ground privilege etc. At the time of implementation, a number commented that it was unclear upon initial reading of the documentation if the Tilt High Risk Summary section applied to an individual's current care environment, or general risk (38%, *n*=15), but noted that this had been explained during subsequent training on the ward location (9%, *n*=8).

7.4 There were no recurring comments noted as significant to the evaluation of the pilot or implementation phase.

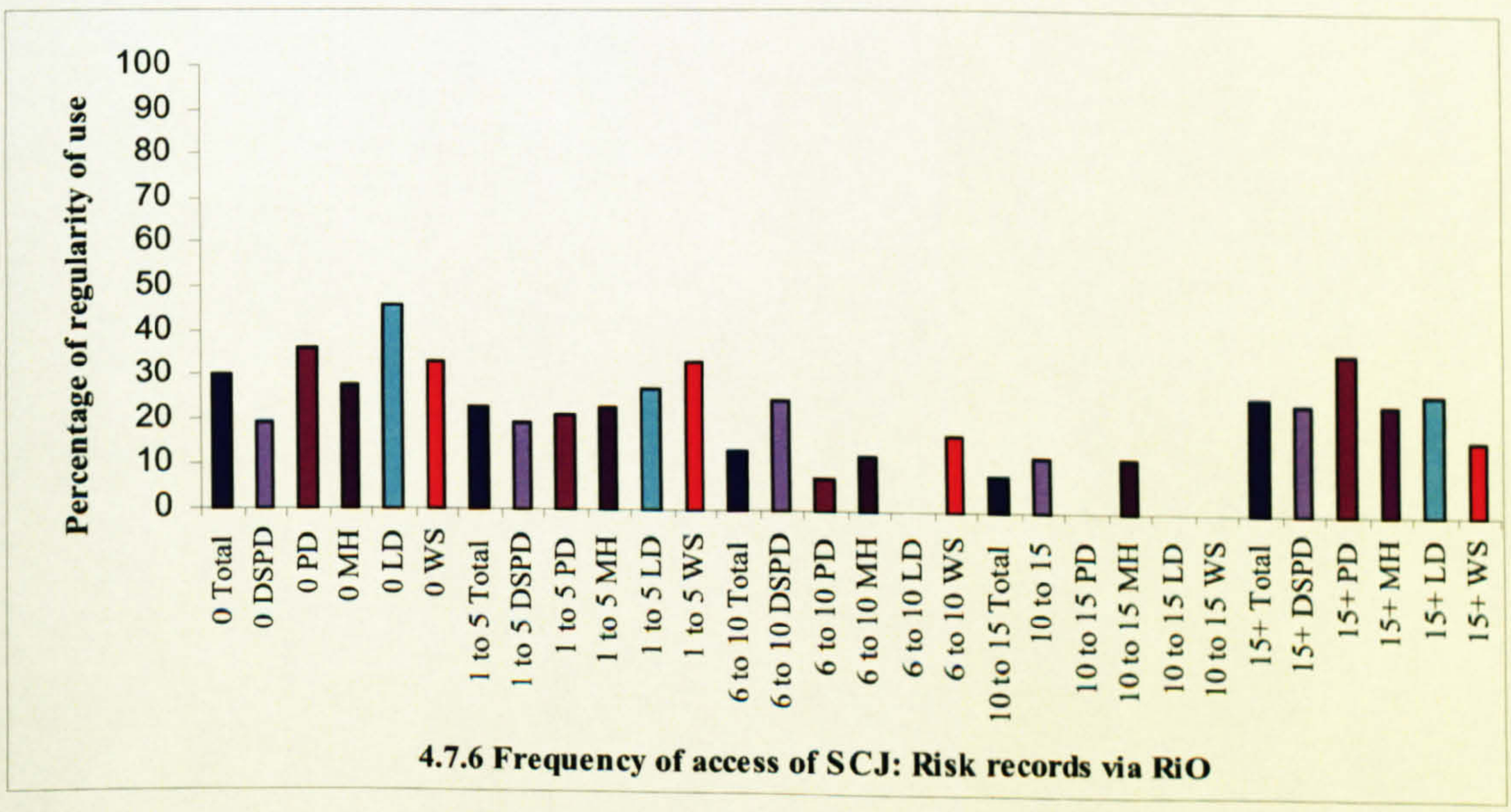
7.5. The majority of respondents had accessed patient case notes via RiO on a number of occasions (84%, *n*=73 of whom had accessed notes fifteen times or more). Only one individual had not accessed the electronic record keeping system. The widespread use of the electronic system for general clinical practice was therefore evidenced. The following Directorates had accessed the system in excess of fifteen times: DSPD (88% *n*=14); PD (100%, *n*=14); MH (80%, *n*=32); LD (73%, *n*=8); WS (83%, *n*=5). The widespread use of the electronic system for general clinical practice was therefore evidenced.

Figure 4.7.5. Number of Times Patient Records Accessed via Electronic Record Keeping System (RiO)



7.6. Frequency of access within RiO to review SCJ: Risk records specifically was not evidenced to the same extent. Thirty per cent of respondents had never accessed SCJ: Risk records electronically (*n*= 26), twenty-three per cent between one and five occasions (*n*=20), eight per cent between ten and fifteen occasions (*n*=7), and twenty-six per cent in excess of fifteen occasions (*n*=23). Respondents within four Directorates indicated most frequently that they had not accessed the electronic SCJ: Risk record-keeping system on any occasion: PD (36%, *n*=5); MH (28%, *n*=11); LD (46%, *n*=5); WS (33%, *n*=2). The remaining respondents had limited access of the system between one and five occasions (ranging from between 19%, *n*=3 DSPD and 33%, *n*=2 WS); between six and ten occasions (with a range of 0%, *n*=0 LD and 25%, *n*=4 DSPD); between ten and fifteen occasions (0%, *n*=0 PD, 12%, *n*=5 DSPD). However, a proportion of respondents had accessed the system in excess of fifteen times: DSPD (25%, *n*=4); PD (36%, *n*=5); MH (25%, *n*=10); LD (27%, *n*=3); WS (17%, *n*=1).

Figure 4.7.6. Number of Times SCJ: Risk Accessed via Electronic Record Keeping System (RiO)



4.7.6 Frequency of access of SCJ: Risk records via RiO

4.8.3 Summary of Results

Pilot

Ongoing evaluation of the SCJ: Risk was considered important to respondents (100%, *n*=45) as were the communication of outcomes (100%, *n*=45).

Implementation

Communication of evaluations to clinical team members was considered important to the majority of respondents at the time of implementation (74%, *n*=64). Findings indicated that staff accessed patient records within RiO as part of their general clinical practice (99%, *n*= 86), but that SCJ: Risk records were not being accessed to the same extent (70%, *n*=61). Acquisition of skill to access the electronic system was therefore present, but awareness of the existence of the system and how to access records were identified as a training need.

4.9 Perceived Clarity and Relevance of SCJ: Risk

Clinical team members were asked to indicate agreement to statements pertaining to completion of documentation for new admissions, clarity of definitions of the system, relevance of subscale items. Respondents were also asked to identify the item subscales that were most (or least) helpful and relevant to assessing and managing patient risk.

4.9.1 Research Questions

The following questions were presented to respondents following the implementation phase only. The SCJ: Risk:

8.1. is unclear in certain sections

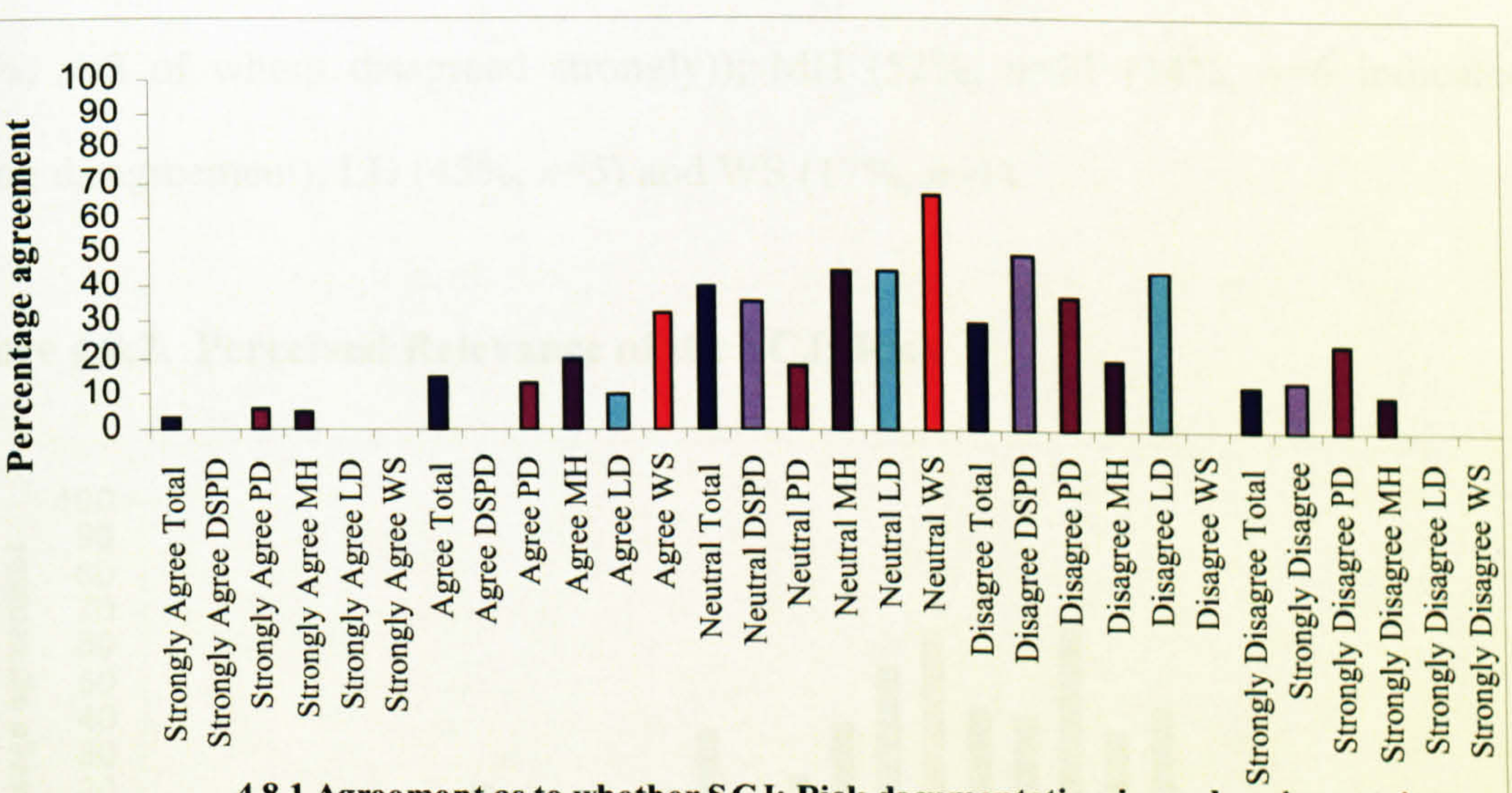
8.2. is irrelevant in certain sections

4.9.2 Results

Responses related to the perceived clarity and relevance of SCJ: Risk document, displayed by Directorate may be found in Table C8, Appendix 2.4.

8.1. A proportion of respondents involved in the implementation did not agree that SCJ: Risk documentation was unclear in certain sections (42%, *n*=36). Two fifths recorded a neutral opinion (40%, *n*=35). However, eighteen per cent indicated that the document lacked clarity in certain sections (3%, *n*=3 strongly asserted this belief; 15%, *n*=13 also agreed this to be the case). Of the total proportion strongly agreeing that the system lacked clarity, respondents from two Directorates asserted this to be the case: DSPD (6%, *n*=1); MH (5%, *n*=2). All Directorates (with the exception of PD) agreed to varying extents that the system lacked clarity: DSPD (13%, *n*=2); MH (20%, *n*=8); LD (10%, *n*=1); WS (33%, *n*=2). Directorates of DSPD (63%, *n*=10), PD (64%, *n*=9), MH (30%, *n*=12) and LD (45%, *n*=5) indicated agreement that the system was clear.

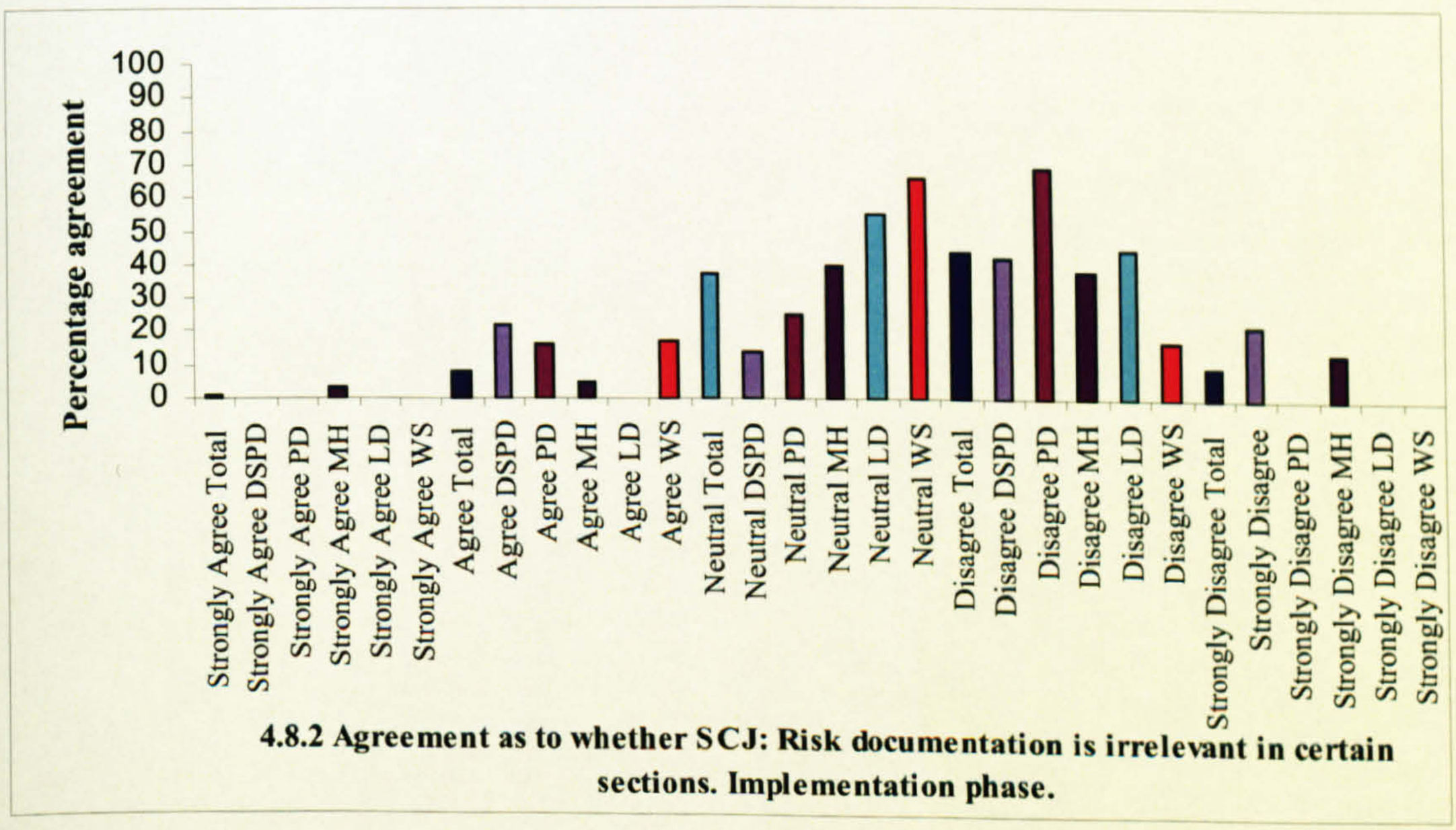
Figure 4.8.1. Perceived Clarity of SCJ: Risk Documentation



4.8.1 Agreement as to whether SCJ: Risk documentation is unclear in certain sections. Implementation phase

8.2. The SCJ: Risk was perceived as having relevance to over half the clinical team members responding to the evaluation survey (44%, *n*=38 strongly disagreed; 10%, *n*=9 disagreed that the system was irrelevant). A large proportion returned a neutral response (37%, *n*=32). The remaining proportion indicated that the system was irrelevant in certain sections (8%, *n*=7 agreed; 1%, *n*=1 strongly agreed). Differences between Directorates were found. The Learning Disability Directorate did not find the SCJ: Risk to be irrelevant (0%, *n*=0), however the following proportions from each Directorate did find the relevance of certain sections to be problematic: DSPD (6%, *n*=1); PD (22%, *n*=3); MH (8%, *n*=3 (of whom 3%; *n*=1 agreed strongly)); WS (17%, *n*=1). Neutral opinion was the most frequently recorded response from three Directorates: MH (40%, *n*=16), LD (55%, *n*=6) and WS (66%, *n*=4). Respondents from all Directorates indicated disagreement to the statement that the SCJ: Risk was irrelevant: DSPD (69%, *n*=11); PD (64%, *n*=9 (22%, *n*=3 of whom disagreed strongly)); MH (52%, *n*=21 (14%, *n*=6 indicated strong disagreement); LD (45%, *n*=5) and WS (17%, *n*=1).

Figure 4.8.2. Perceived Relevance of the SCJ: Risk



4.8.2 Agreement as to whether SCJ: Risk documentation is irrelevant in certain sections. Implementation phase.

4.9.3 Summary of Results

Implementation

Convincing assertions of the clarity of SCJ: Risk documentation was not evidenced. The system was perceived as having clarity by 42% (*n*=36) of respondents following use of the system in clinical practice. Disagreement as to the clarity of the system was asserted by eighteen per cent (*n*=16). Neutral opinion was a frequent response to this question (40%, *n*=35). Qualitative feedback suggested that the most frequently cited items were additional items of the SCJ: Risk relating to Suicide/Self Harm, and the Risk Scenario Planning portions of the document.

The perceived relevance of the system was affirmed by a proportion of respondents (54%, *n*=47), however (similar to comments regarding clarity of the system), a large number of respondents indicated a neutral response (37%, *n*=32), and the system was seen not to have relevance by a proportion of respondents (9%, *n*=8). Qualitative analysis of feedback indicated that the portions of the document relating to the Scenario Planning section were deemed the least relevant.

4.10 Relevance of HCR-20 / SCJ: Risk Total Subscales

Respondents following the implementation phase were asked to indicate which subscales were helpful / relevant to assessing and managing patient risk by the following scales:

4.10.1 Research Questions

Research questions related to the perception of the relevance of nine subscale items of the HCR-20, and SCJ: Risk:

9.1. Historical

9.2. Clinical

9.3. Risk

9.4. Suicide / Self-harm

9.5. Vulnerability

9.6. Escape

9.7. Scenario Planning

9.8. Tilt High Risk Summary

9.9. Risk Management Planning

9.10 HCR-20 Subscales

9.11 Additional SCJ: Risk Subscales

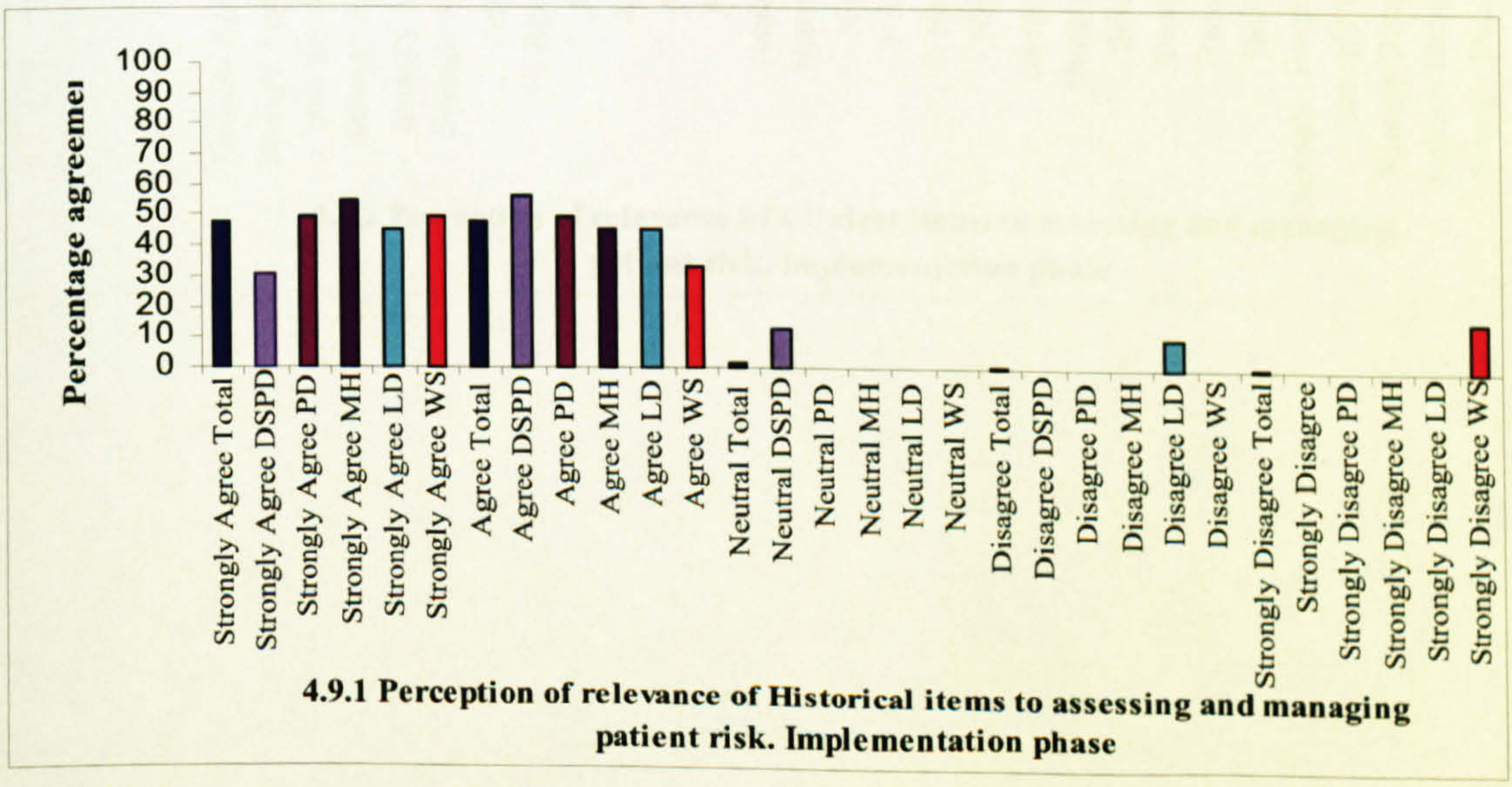
9.12 SCJ: Risk Overall

4.10.2 Results

Table C9, Appendix 2.4 provides a detailed summary of the perceived relevance of each subscale in relation to the assessment and management of risk, displayed by Directorate.

9.1. The Historical portion of the document was perceived as relevant by ninety-six per cent of respondents (48%, *n*=42 strongly agreed, and the same proportion agreed). All four Directorates indicated strong agreement: DSPD (31%, *n*=5); PD (50%, *n*=7); MH (55%, *n*=22); LD (45%, *n*=10); WS (50%, *n*=3). Agreement was indicated by the following proportions: DSPD (56%, *n*=9); PD (50%, *n*=7); MH (45%, *n*=18); LD (45%, *n*=5); WS (33%, *n*=2). The Historical Subscale yielded the least frequency of neutral responses within the documentation overall (only two per cent of the total respondents indicated a neutral response (DPSD (13%, *n*=2)). Two per cent of the remaining total disagreed to the relevance of the Historical section (*n*=2), of whom ten per cent indicated disagreement from the LD Directorate (*n*=1), and per cent indicated strong disagreement from WS (*n*=1).

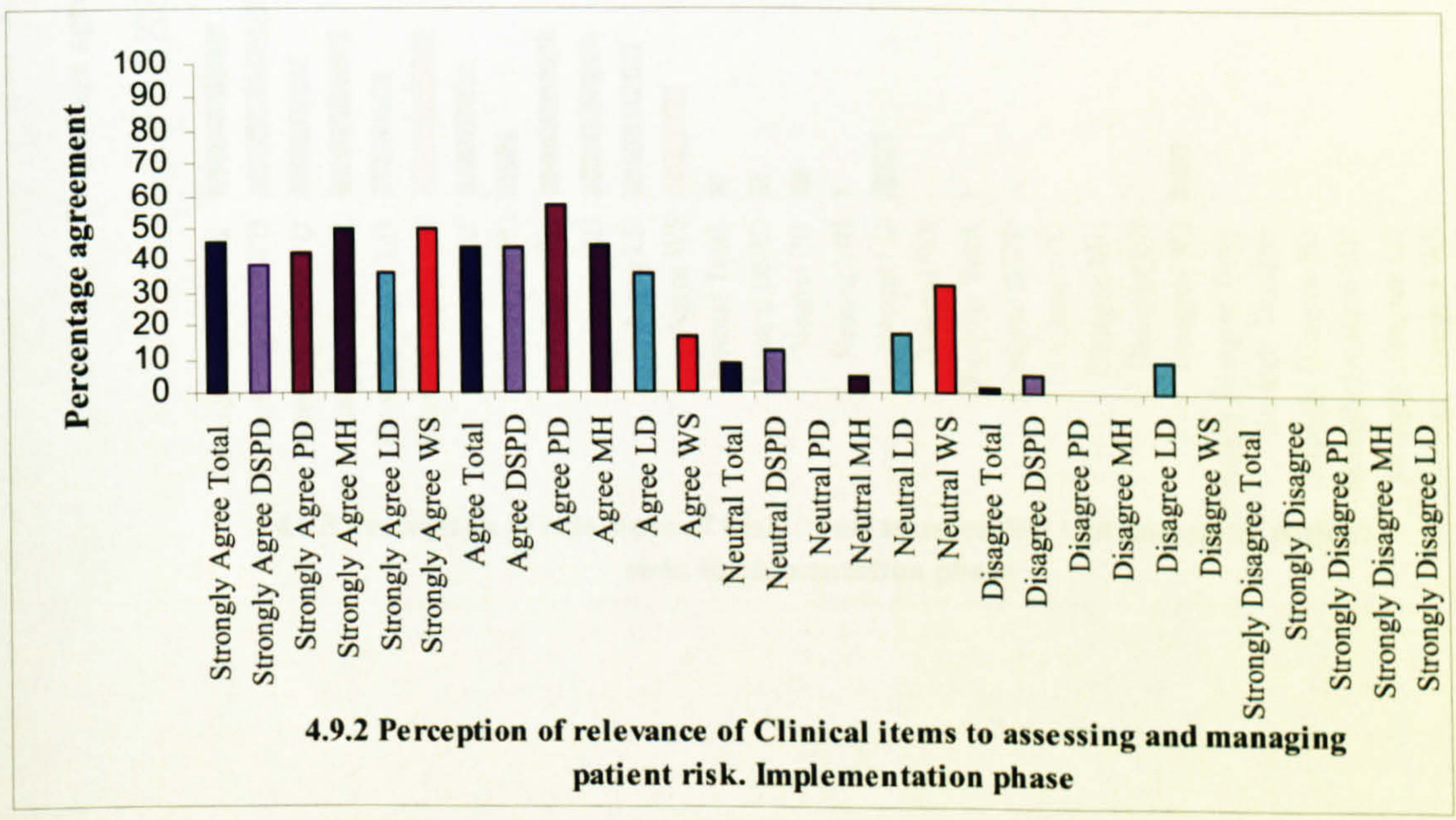
Figure 4.9.1. Perceived Relevance of Historical Items



4.9.1 Perception of relevance of Historical items to assessing and managing patient risk. Implementation phase

9.2. Ninety per cent of respondents (n=77) indicated agreement to the relevance of the Clinical items. The highest level of agreement was found within the PD directorate (100%, n=57). The remaining four Directorates indicated high levels of overall agreement: DSPD (83%, n=13); MH (95%, n=35); LD (72%, n=8) and WS (67%, n=4). Strong agreement was found within all Directorates: DSPD (39%, n=6); PD (43%, n=6); MH (50%, n=20); LD (36%, n=4) and WS (50%, n=3). Disagreement as to the relevance of the Clinical Subscale was found within the Directorates of: DSPD (6%, n=1) and LD (10%, n=1). Nine per cent (n=8) of all respondents indicated a neutral response (DSPD 13%, n=2; MH 5%, n=2; LD 18%, n=2; WS 33%, n=2).

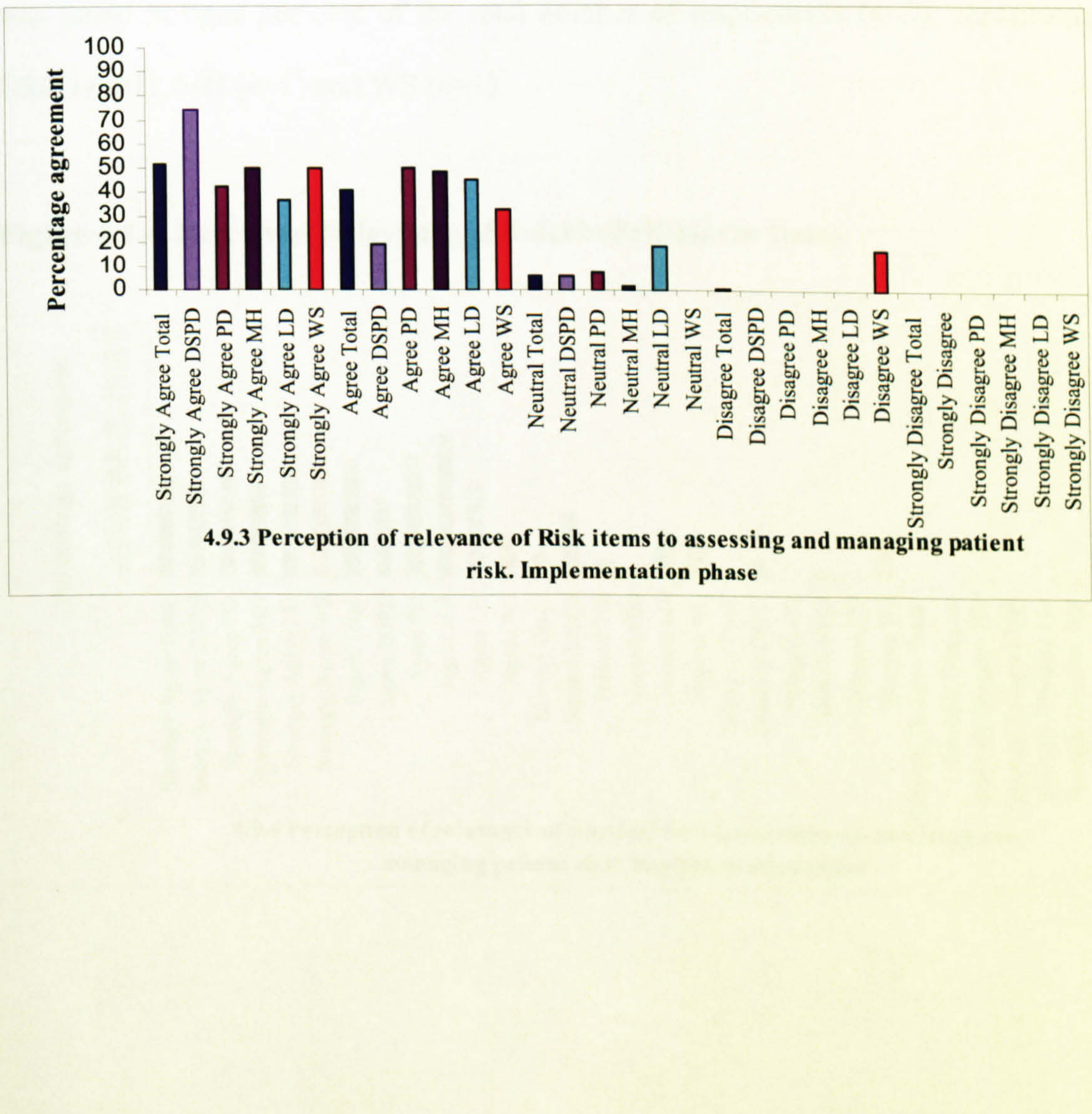
Figure 4.9.2. Perceived Relevance of Clinical Items



4.9.2 Perception of relevance of Clinical items to assessing and managing patient risk. Implementation phase

9.3. The Risk portion of the HCR-20/SCJ: Risk documentation was perceived as the most relevant section overall (93%, *n*=81). Levels of overall agreement ranged between ninety-four per cent (DSPD, *n*=15) and eighty-two per cent (LD, *n*=9). Strong levels of agreement were frequently reported from all Directorates: DSPD (75%, *n*=12); PD (43%, *n*=6); MH (50%, *n*=20); LD (37%, *n*=4) and WS (50%, *n*=3). Only one per cent of total respondents indicated disagreement to the relevance of the Risk subscale (WS 16%, *n*=1). A neutral opinion was also reported relatively infrequently as six per cent of the total (*n*=5).

Figure 4.9.3. Perceived Relevance of Risk Items



4.9.3 Perception of relevance of Risk items to assessing and managing patient risk. Implementation phase

9.4. Eighty-seven per cent of all respondents indicated a level of agreement that the Suicide/Self Harm portion of SCJ: Risk documentation was relevant. Three Directorates indicated strong agreement as the most frequent response: DSPD (38%, *n*=6); LD (45%, *n*=5); WS (50%, *n*=3). The remaining two Directorates indicated agreement as the mode response: PD (50%, *n*=7); MH (58%, *n*=23). Neutral opinion was indicated by ten per cent of the total proportion of respondents (*n*=9) whereby a quarter of all DSPD respondents indicated this response (25%, *n*=4). The same response was observed within the remaining four Directorates: PD (7%, *n*=1); MH (2%, *n*=1); LD (18%, *n*=2); WS (17%, *n*=1). No one respondent strongly disagreed to the relevance of the subscale, but disagreement was found in three per cent of the total number of respondents (*n*=3), constituting DSPD (*n*=1); MH (*n*=1) and WS (*n*=1).

Figure 4.9.4. Perceived Relevance of Suicide/Self-Harm Items

4.9.4 Perception of relevance of Suicide/ Self-harm items to assessing and managing patient risk. Implementation phase

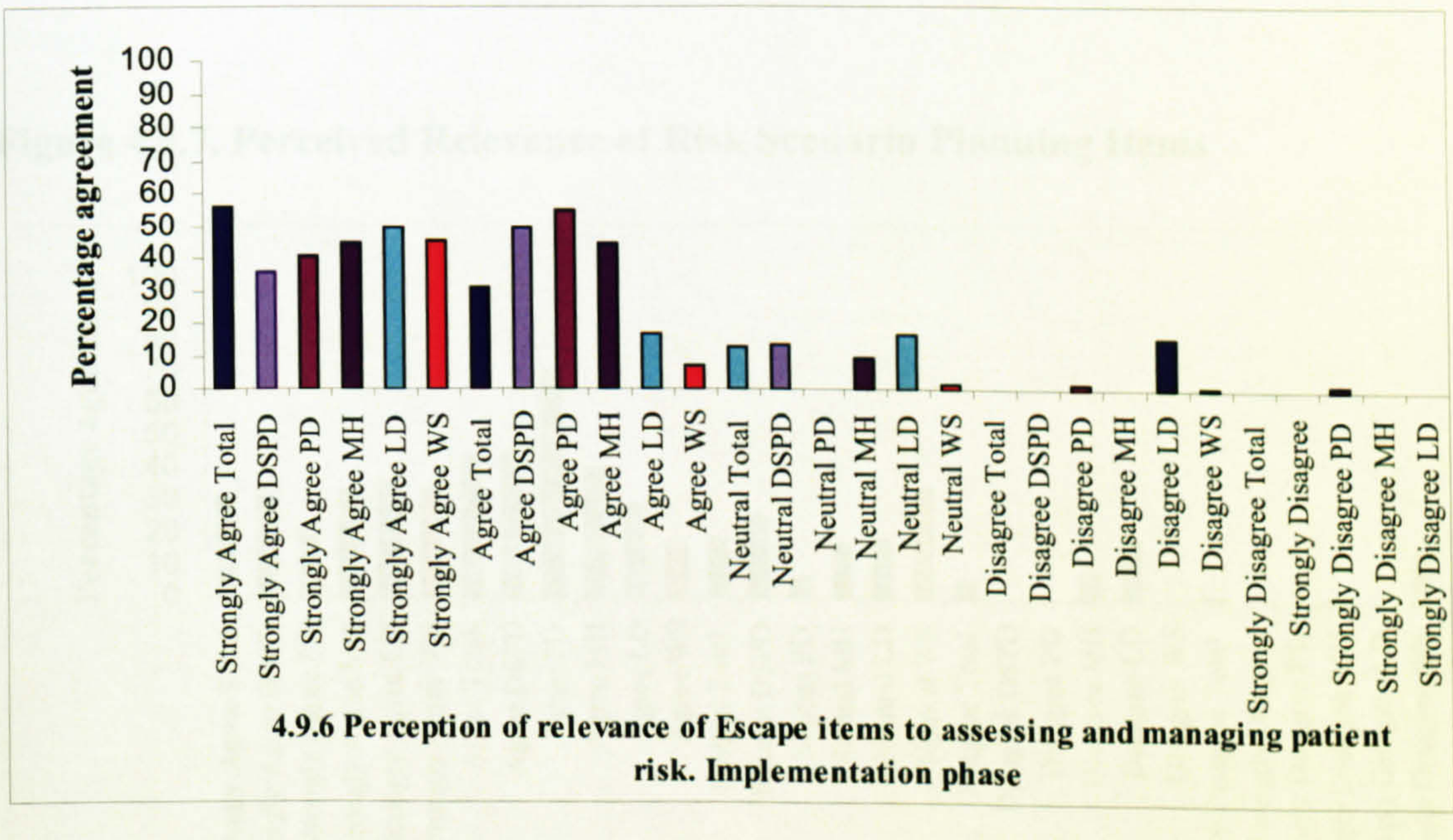
9.5. Vulnerability items were seen as having most relevance within the Personality Disorder Directorate (93%, *n*=13). The total proportion of agreement as to relevance was eighty-four per cent: DSPD (69%, *n*=11); MH (86%, *n*=34); LD (82%, *n*=9) and WS (50%, *n*=4). Within DSPD and WS, strong agreement was the most frequently recorded response (38%, *n*=6 and 50%, *n*=3 respectively). Agreement was most frequently observed within PD (50%, *n*=7), MH (48%, *n*=19) and LD (45%, *n*=5). The Vulnerability subscale had the second highest proportion of neutral responses of all subscales comprising the SCJ: Risk (after the Scenario planning Section, detailed below). Sixteen per cent of the total proportion of respondents indicated a neutral opinion (*n*=14): DSPD (31%, *n*=5); PD (7%, *n*=1); MH (14%, *n*=5); LD (18%, *n*=2) and WS (16%, *n*=1).

Figure 4.9.5. Perceived Relevance of Vulnerability Items

4.9.5 Perception of relevance of Vulnerability items to assessing and managing patient risk. Implementation phase

9.6. The Escape subscale of the SCJ: Risk was perceived as relevant to ninety per cent of respondents: DSPD (87%, *n*=14); PD (86%, *n*=12); MH (96%, *n*=22); LD (90%, *n*=10) and WS (67%, *n*=4). Strong levels of agreement were recorded as the most frequent response by DSPD (56%, *n*=9), LD (45%, *n*=5) and WS (50%, *n*=3). Agreement was indicated as the most frequent opinion by respondents from the Directorates of PD (50%, *n*=7), MH (55%, *n*=22) and LD (45%, *n*=5). Neutral opinion was recorded by six respondents (7% of the total proportion: DSPD (13%, *n*=2); PD (14%, *n*=2); LD (10%, *n*=1) and WS (17%, *n*=1). Levels of disagreement were indicated by three per cent of the total number of respondents (*n*=2: MH, *n*=2; WS, *n*=1).

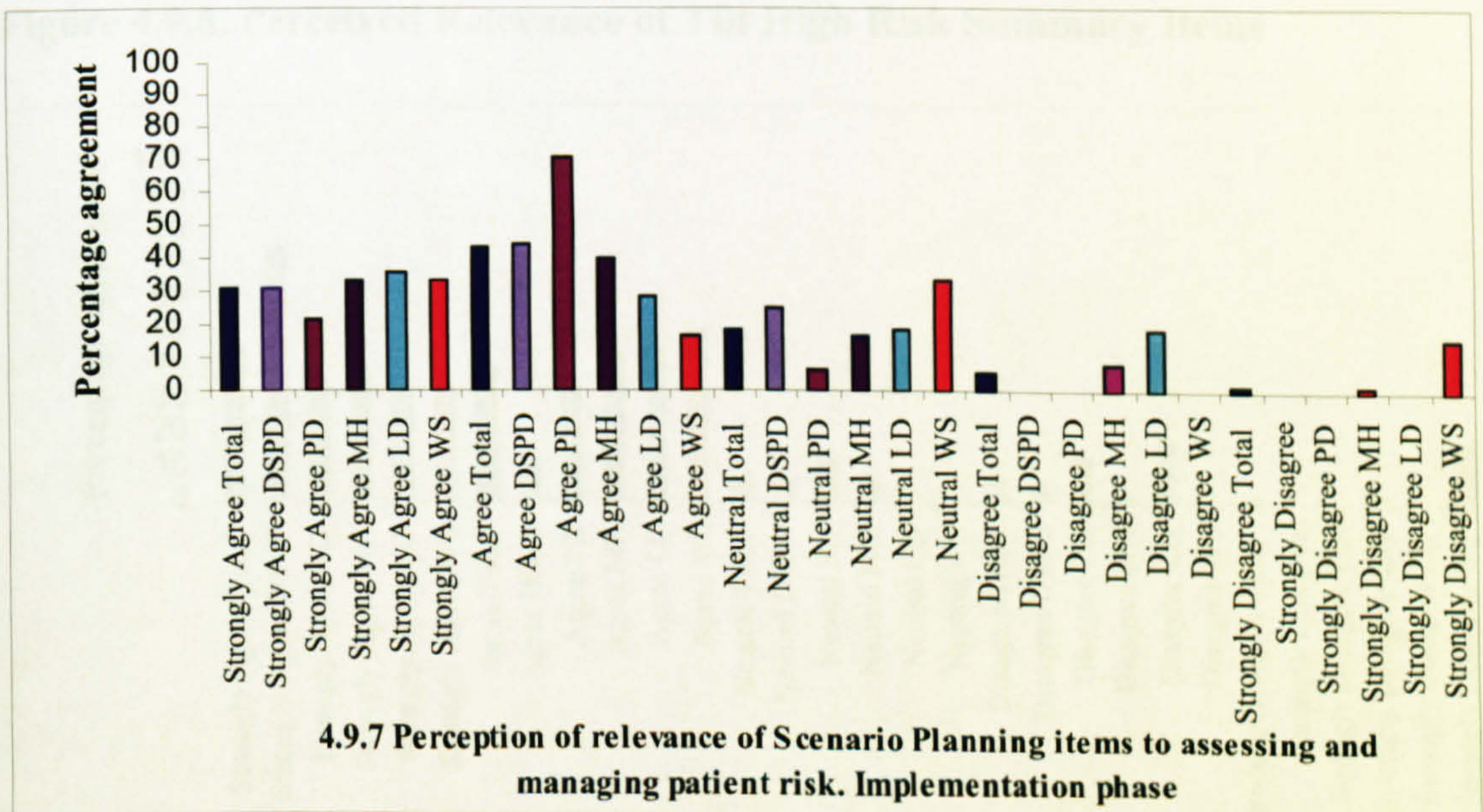
Figure 4.9.6. Perceived Relevance of Escape Items



4.9.6 Perception of relevance of Escape items to assessing and managing patient risk. Implementation phase

9.7. Almost two-thirds of those surveyed asserted that the Risk Scenario Planning subscale was relevant to assessing and managing patient risk (74%, *n*=64). The Learning Disability and Women's Service Directorates indicated strong agreement to the utility of this subscale (36%, *n*=4 and 33%, *n*=2). The remaining three Directorates indicated agreement as the mode response: DSPD (44%, *n*=7); PD (71%, *n*=10) and MH (40%, *n*=16). The Women's Service most frequently indicated a neutral response (33%, *n*=2). Greater variation in responses was recorded for this subscale, including the highest proportion of neutral opinion than any other subscale of the SCJ: Risk: Total (18%, *n*=16); DSPD (25%, *n*=4); PD (7%, *n*=1); MH (17%, *n*=7); LD (18%, *n*=2); WS (33%, *n*=2). Disagreement as to the relevance of the Risk Scenario Planning portion was prevalent in eight per cent of respondents (*n*=7): MH (10%, *n*=4); LD (18%, *n*=2) and WS (16%, *n*=1).

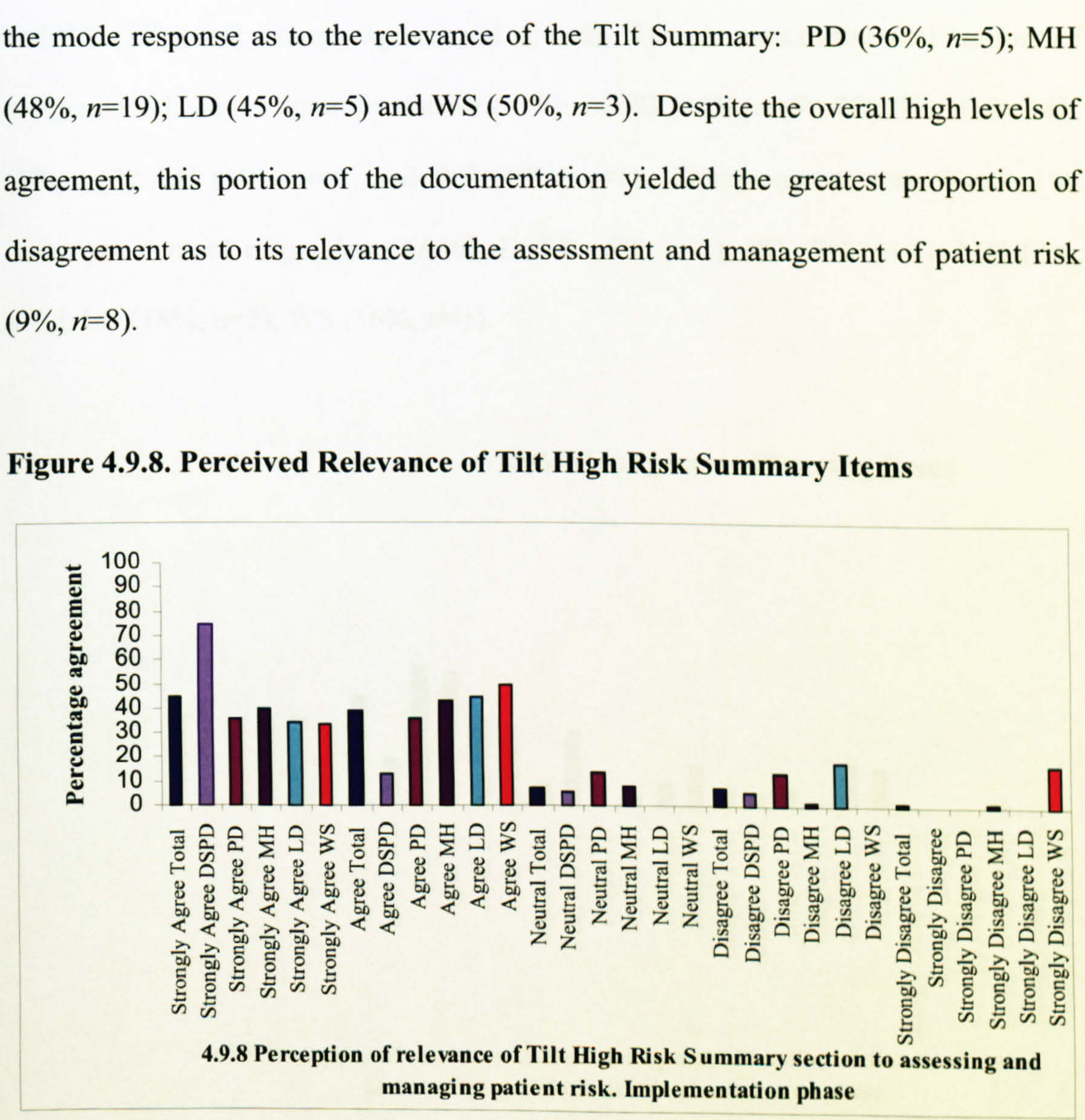
Figure 4.9.7. Perceived Relevance of Risk Scenario Planning Items



4.9.7 Perception of relevance of Scenario Planning items to assessing and managing patient risk. Implementation phase

9.8. The Tilt High Risk Summary portion of the SCJ: Risk was perceived as relevant by eighty-four per cent of the total respondents (n=73). The scale was deemed most relevant by respondents within DSPD (88%, n=14) and MH (88%, n=35). High levels of agreement were also reported within PD (72%, n=10); LD (79%, n=9) and WS (83%, n=2). Robust levels of agreement were observed within the DSPD Directorate (75%, n=12 agreed strongly). The remaining four directorates also evidenced strong agreement levels: PD (35%, n=5); MH (40%, n=16); LD (34%, n=4) and WS (33%, n=2). The latter four Directorates indicated agreement as the mode response as to the relevance of the Tilt Summary: PD (36%, n=5); MH (48%, n=19); LD (45%, n=5) and WS (50%, n=3). Despite the overall high levels of agreement, this portion of the documentation yielded the greatest proportion of disagreement as to its relevance to the assessment and management of patient risk (9%, n=8).

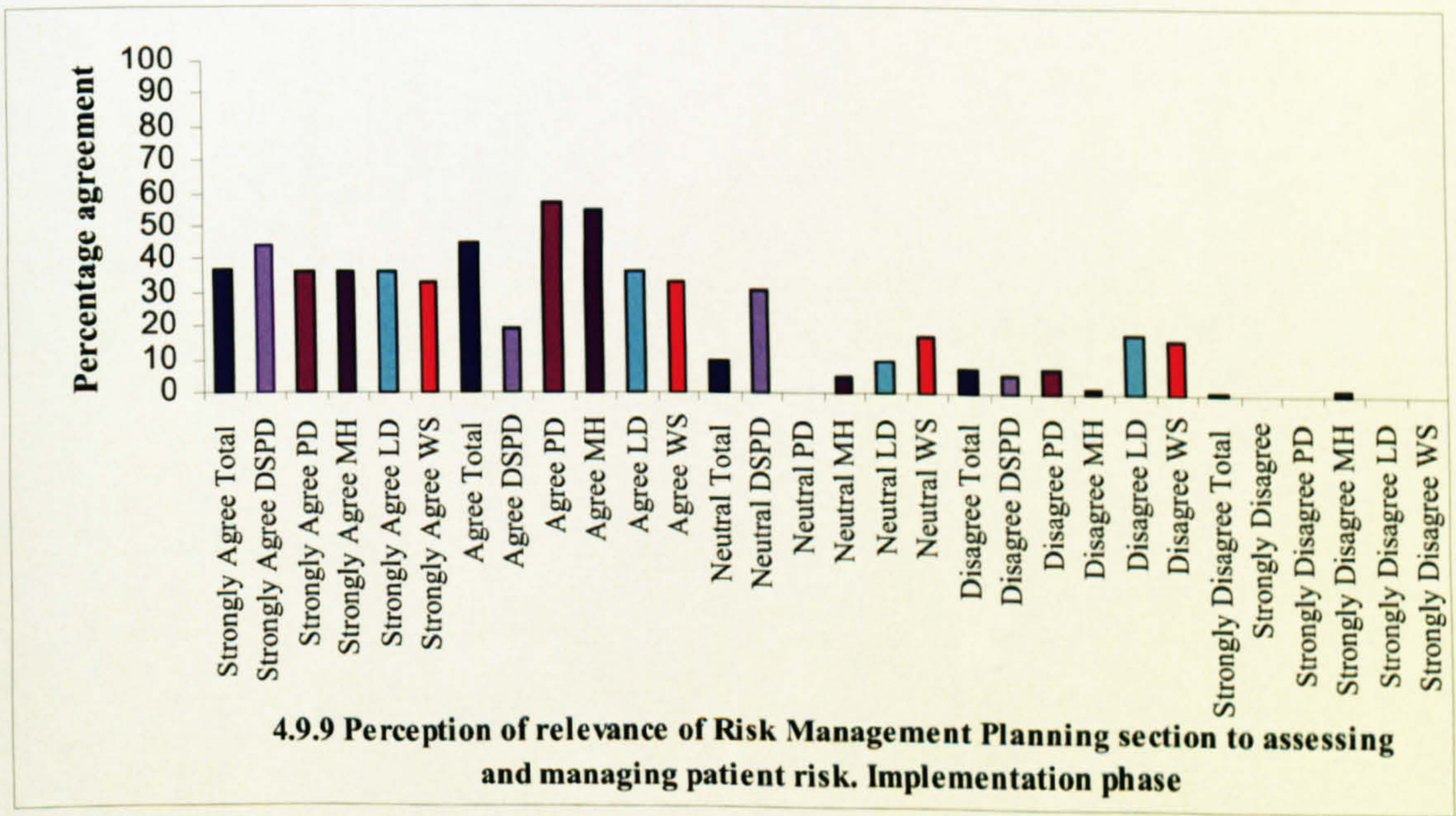
Figure 4.9.8. Perceived Relevance of Tilt High Risk Summary Items



4.9.8 Perception of relevance of Tilt High Risk Summary section to assessing and managing patient risk. Implementation phase

9.9. Eighty-two per cent of respondents asserted that the Risk Management Planning Portion of the SCJ: Risk was relevant to the assessment and management of patient risk: DSPD (73%, *n*=10); PD (93%, *n*=13); MH (91%, *n*=36); LD (72%, *n*=8) and WS (66%, *n*=4). Within each Directorate, different levels of agreement were apparent. The mode response for DSPD was strong agreement (44%, *n*=7). Within the Directorates of PD and MH, agreement was most frequently indicated (57%, *n*=8 and 55%, *n*=36). The remaining two Directorates indicated equal proportions of levels of agreement LD (36%, *n*=4 strongly agreed and agreed) and WS (33%, *n*=2 strongly agreed and agreed). Ten per cent of the total number of recipients indicated a neutral response (*n*=9): DSPD (31%, *n*=5); PD (0%, *n*=0); MH (5%, *n*=2); LD (10%, *n*=1) and WS (17%, *n*=1). Disagreement was observed in seven per cent of respondents (*n*=6): DSPD (6%, *n*=1); PD (7%, *n*=1); MH (2%, *n*=1); LD (18%, *n*=2); WS (16%, *n*=1).

Figure 4.9.9. Perceived Relevance of Risk Management Planning Items



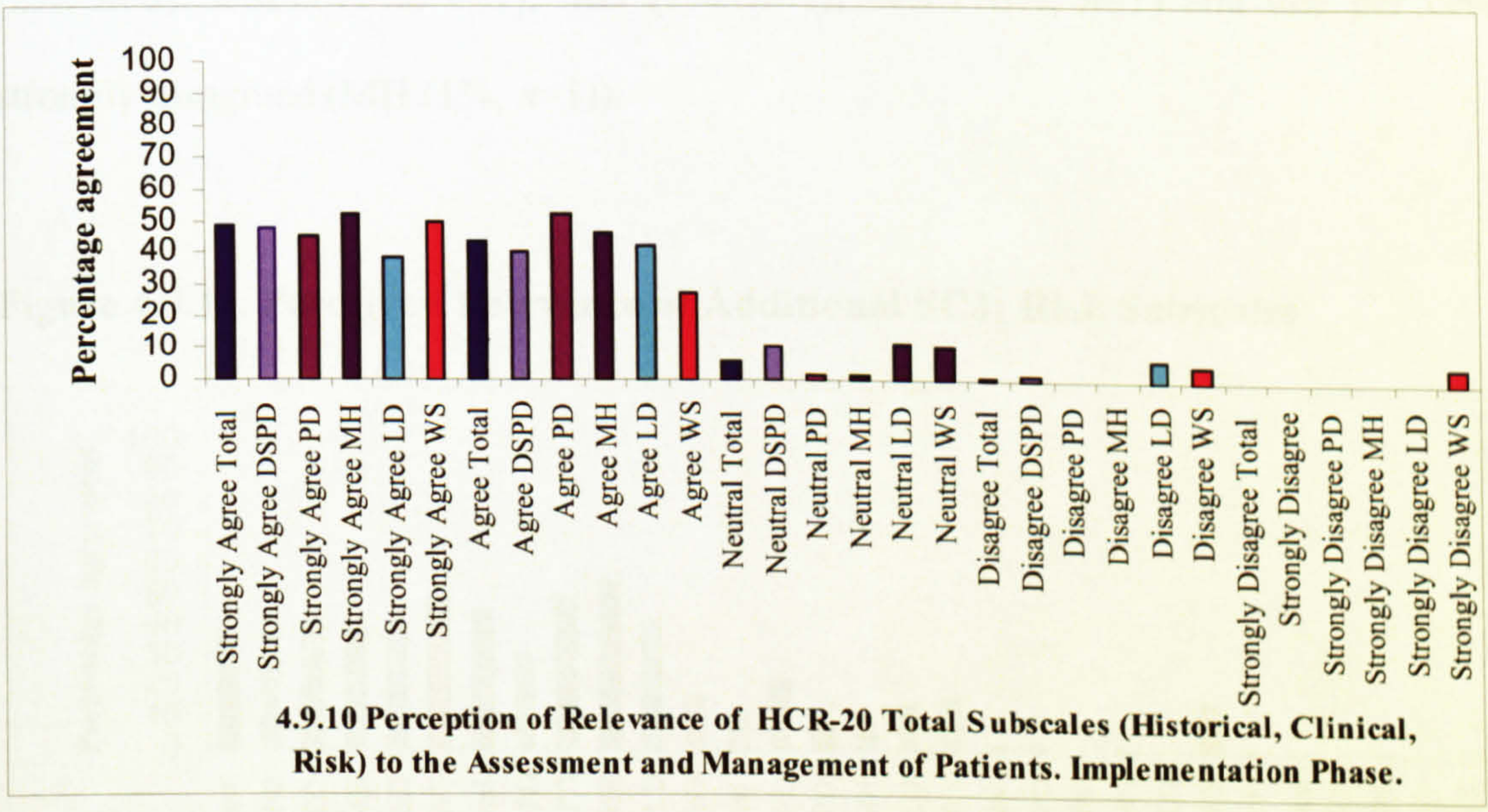
4.9.9 Perception of relevance of Risk Management Planning section to assessing and managing patient risk. Implementation phase

Analysis of Responses of Questionnaire Items 9.1 to 9.9

Table C9, Appendix 2.4 provides a summary of an analysis of responses pertaining to the relevance of subscales from the HCR-20, additional subscales of the SCJ: Risk, and the document in its entirety to the assessment and management of patient risk. Figure 9.10 displays totals of the mean responses of the perceived relevance of Historical, Clinical and Risk subscales displayed by Directorate. Figure 4.9.11 displays the mean scores for the additional Suicide, Vulnerability and Escape subscales. Figure 4.9.12 represents mean total responses per Directorate for the perceived relevance of all portions of SCJ: Risk Documentation.

9.10. Ninety-three per cent of respondents indicated agreement that the subscales comprising the HCR-20 were relevant to the assessment and management of patients: DSPD (87%, *n*=14); PD (98%, *n*=46); MH (98%, *n*=39), LD (81%, *n*=9), WS (78%, *n*=5). Strong levels of agreement were the most frequently indicated opinions from the Directorates of DSPD (48%, *n*=8); PD (46%, *n*=6); MH (52%, *n*=21) and WS (50%, *n*=3). The Learning Disability Directorate indicated agreement to the utility of the HCR-20 subscales as the most frequent response (42%, *n*=5). Six per cent of all respondents indicated a neutral response (*n*=5: DSPD (11%, *n*=1); PD (3%, *n*=1); MH (2%, *n*=1); LD (12%, *n*=1) and WS (12%, *n*=1).

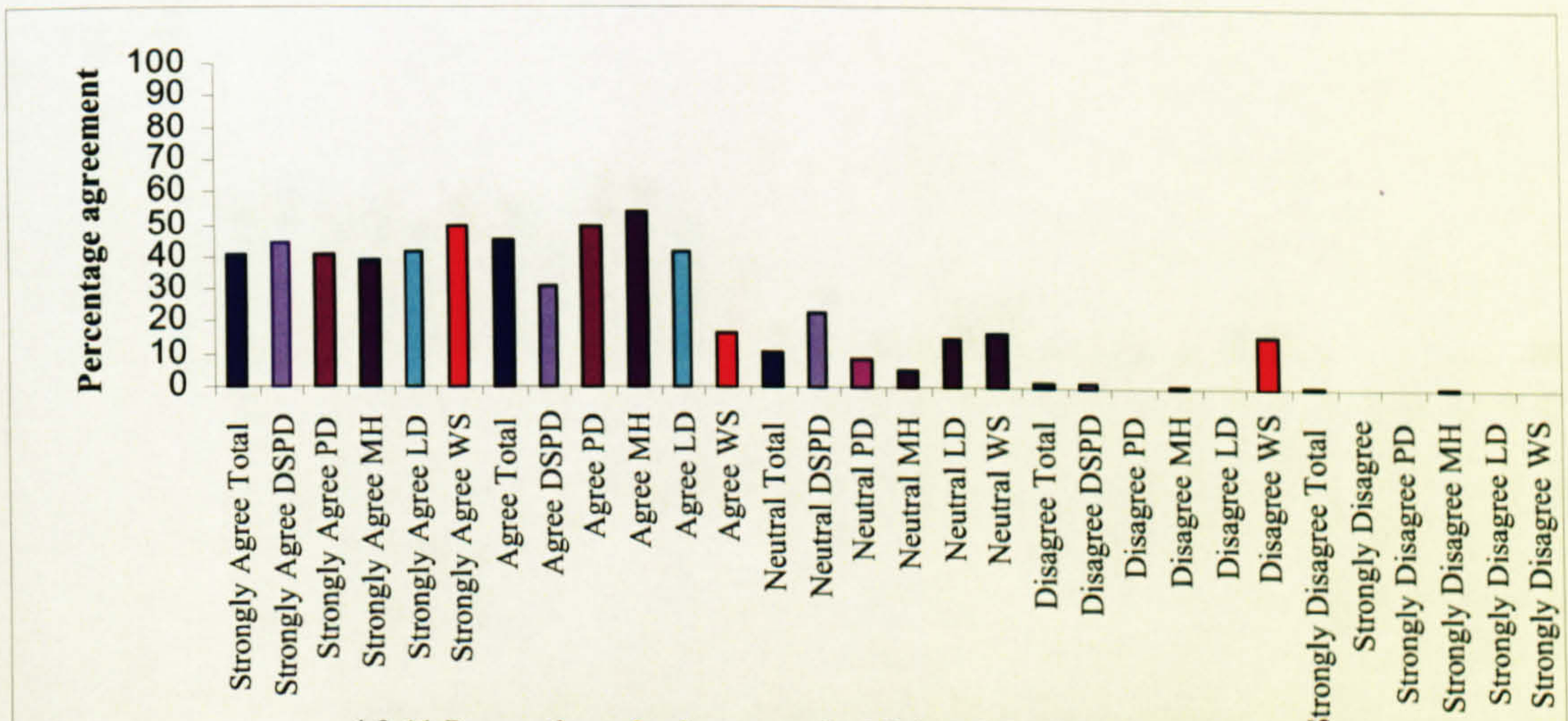
Figure 4.9.10. Perceived Relevance of HCR-20 Total Subscales



4.9.10 Perception of Relevance of HCR-20 Total Subscales (Historical, Clinical, Risk) to the Assessment and Management of Patients. Implementation Phase.

9.11. The additional subscales of the SCJ: Risk (Suicide, Vulnerability and Escape) were perceived to be of relevance to eighty-six per cent of the total number of respondents. Similar to the findings of 9.10 (above) PD and MH found the additional subscales to be the most relevant (91%, *n*=12 and 93%, *n*=38). The remaining three Directorates also indicated high proportions of agreement as to the relevance of the additional subscales: DSPD (75%, *n*=12); LD (84%, *n*=10) and WS (67%, *n*=4). Neutral responses were indicated more frequently than for items comprising the HCR-20, as eleven per cent recorded this response (*n*=10): DSPD (23%, *n*=4); PD (9%, *n*=1); MH (5%, *n*=2); LD (16%, *n*=2) and WS (17%, *n*=1). Three per cent of respondents disagreed that the additional subscales were relevant: (2%, *n*=3): DSPD (2%, *n*=1); MH (1%, *n*=1); WS (16%, *n*=1) and one per cent strongly disagreed (MH (1%, *n*=1)).

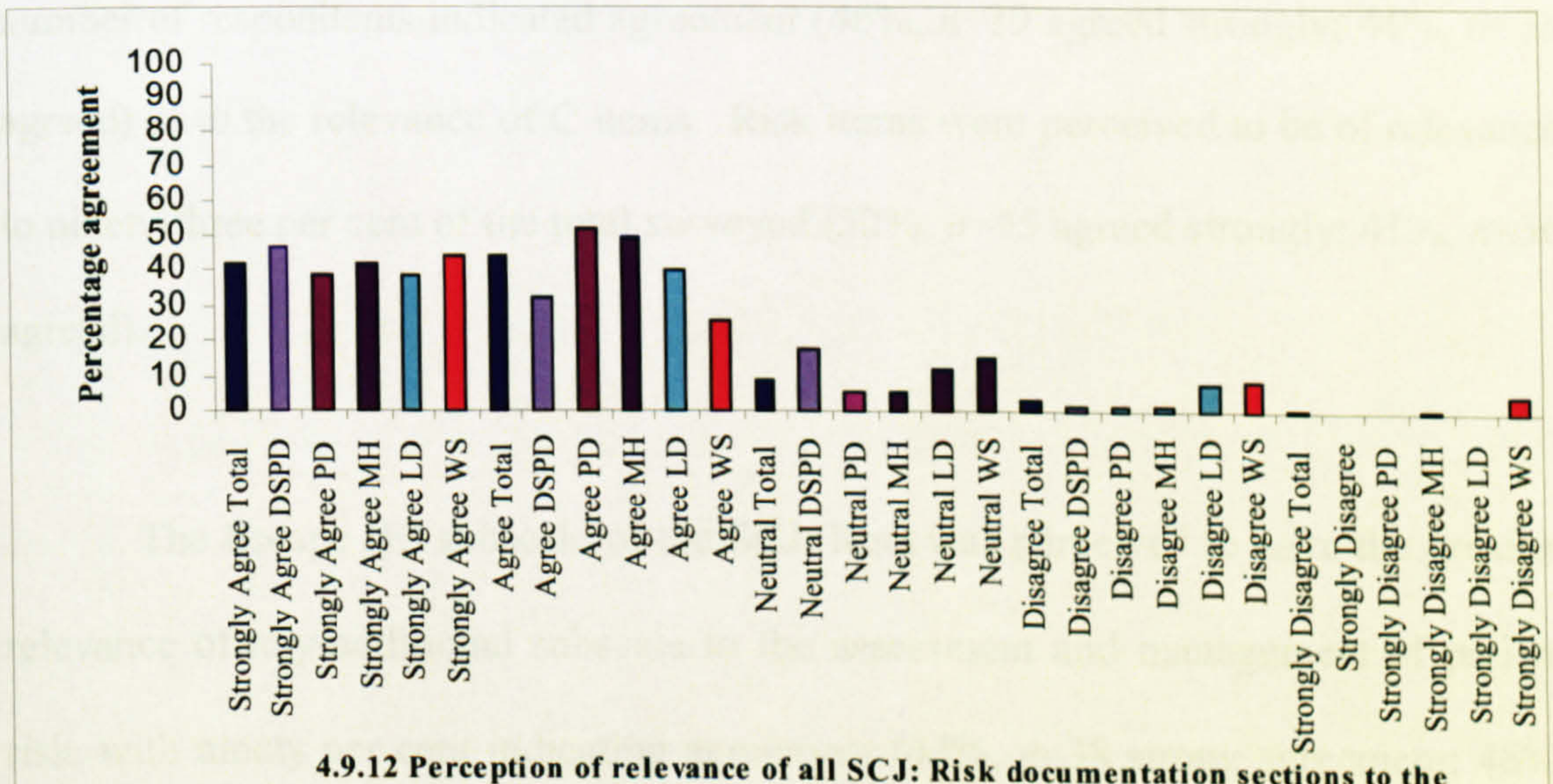
Figure 4.9.11. Perceived Relevance of Additional SCJ: Risk Subscales



4.9.11 Perception of relevance of additional SCJ:Risk subscales (Suicide, Vulnerability, Escape) to the assessment and management of Patients. Implementation Phase

9.12. SCJ: Risk documentation overall was perceived as relevant to the assessment and management of patient risk by eighty-six per cent all respondents: DSPD (79%, *n*=11); PD (91%, *n*=12); MH (92%, *n*=17); LD (79%, *n*=8) and WS (70%, *n*=4). The most frequent response from two Directorates was strong agreement as to the relevance of the document: DSPD (47%, *n*=8) and WS (44%, *n*=3). The mode response of the remaining three Directorates asserted agreement: PD (52%, *n*=7); MH (49%, *n*=19) and WS (44%, *n*=3). The inclusion of the additional portions relating to Scenario Planning and the Tilt High Risk Summary indicated a marginally higher level of disagreement as the relevance of the SCJ: Risk, as four per cent of respondents indicated this to be the case (3%, *n*=3 disagreed: DSPD, 2%, *n*=2; PD 2%, *n*=1) and one per cent (MH, *n*=1) strongly disagreed. The remaining nine per cent of respondents indicated a neutral response (*n*=8).

Figure 4.9.12. Perceived Relevance of SCJ: Risk Documentation Overall



4.9.12 Perception of relevance of all SCJ: Risk documentation sections to the assessment and management of patient risk. Implementation Phase

4.10.3 Summary of Results

Implementation

The HCR-20 (Historical, Clinical Risk) total subscales were perceived to be of greater relevance than the additional subscales of the SCJ: Risk (Suicide, Vulnerability, Escape). Ninety-three per cent of respondents agreed (49%, *n*=42 strongly; 44%, *n*=38 agreeing) that the HCR-20 subscales were relevant. By comparison, eighty-six per cent agreed to the total relevance of Suicide, Vulnerability and Suicide/Self-harm subscales (41%, *n*=35 strongly agreed; 45%, *n*=39 agreed).

The Historical (H) subscale was perceived as having the most relevance of any subscale, evidenced by ninety-six per cent of respondents agreeing (either strongly agreeing (48%, *n*=42), or agreeing (48%, *n*=42)). Clinical (C) and Risk (R) subscale totals were also perceived as of relevance. Ninety per cent of the total number of respondents indicated agreement (46%, *n*=39 agreed strongly; 44%, *n*=38 agreed) as to the relevance of C items. Risk items were perceived to be of relevance to ninety-three per cent of the total surveyed (52%, *n*=45 agreed strongly; 41%, *n*=36 agreed).

The Escape (E) subscale of the SCJ: Risk was perceived to have the greatest relevance of any additional subscale to the assessment and management of patient risk, with ninety per cent indicating agreement (44%, *n*=38 strong agreement; 46%, *n*=39 agreement). Eighty-seven per cent agreed that the Suicide/Self-harm (S) subscale was relevant (40%, *n*=35 agreed strongly; 47%, *n*=40 agreed), and eighty-

four per cent indicated the relevance of the Vulnerability (V) subscale (39%, *n*=34 agreed strongly; 45%, *n*=37 agreed).

Other additional sections of the SCJ: Risk were also perceived as relevant. The Tilt High Risk Summary portion of the document was seen as relevant to the assessment and management of patients by eighty-four per cent (45%, *n*=39 agreed strongly; 39%, *n*=34 agreed). The Risk Management Planning portion was perceived as relevant by eighty-two per cent of respondents (37%, *n*=32 agreed strongly; 45%, *n*=39 agreed). The section that was perceived as having the least relevance was the Scenario Planning portion of the document, however, seventy-four per cent of respondents indicated its relevance (31%, *n*=27 agreed strongly; 43%, *n*=37 agreed).

Participants asserted a more confident judgement when indicating the perceived relevance of HCR-20 items than SCJ: Risk items. On average six per cent (*n*=5) indicated a neutral response to the relevance of total HCR-20 subscales, compared to eleven per cent (*n*=10) when responding to the SCJ: Risk subscale totals. Historical, Clinical and Risk subscales yielded a small proportion of respondents indicating a neutral opinion: H (2%, *n*=2); C (9%, *n*=8); and R (6%, *n*=5). An elevated level of neutral opinion was observed for Suicide, Vulnerability and Risk subscales: S (10%, *n*=9); V (16%, *n*=14) and E (7%, *n*=6). In addition, ambiguity in response was shown to the Scenario Planning (18%, *n*=16) and Risk Management Planning portions (10%, *n*=9) of the SCJ: Risk.

Respondents indicated disagreement as to the relevance of Scenario Planning (8%, *n*=7), Risk Management Planning (8%, *n*=7) and Tilt High Risk Summary (9%,

n=8) portions of the SCJ: Risk system. This finding represents a small proportion of respondents who did not perceive these items to be relevant to the assessment and management of patient risk. However, disagreement as to the relevance of HCR-20 subscale (H,C,R) totals, or SCJ: Risk (S,V,E) totals were not demonstrated to the same extent.

4.11 Discussion

Maden (2007) observed, 'the task of getting people to do things they do not want to do is difficult, demanding and draining' (p.163). Previous attempts to 'create' and implement ways of identifying patient risk factors to fit the requirements of the hospital have met resistance. It was anticipated that an attempt to integrate the SCJ: Risk into ongoing clinical practice may be met with opposition. However, findings of the present investigation showed the system to be held in positive regard by the majority of clinical team members in the nine areas investigated. SCJ: Risk documentation was perceived to be useful and usable overall, and compliance of use of the system within routine clinical practice was evidenced. The system may therefore be said to be *usable* in that the system was said to be effective, efficient and promoted user satisfaction, and to have *utility* in that the system was perceived to be of practical use in performing the task of risk assessment and management of high-risk patients.

The findings of the evaluation survey have a number of implications for future use of the SCJ: Risk system in clinical practice. Staff responses allowed analysis of training needs to ensure consistency of use of the system, including identification of a need to audit training attendance, introduction of SCJ: Risk

training as mandatory, the provision of training for new members of staff via formal delivery by an 'expert' facilitator, and provision of refresher training an annual basis delivered by the same medium. Investigation of the perception of the SCJ: Risk system helped identify necessary content of future training sessions including communication of the benefits of the system to the documentation of risk-related decisions, Tilt requirements, risk management planning and application of the SCJ: Risk to informing clinical practice and patient care during training. Additional training needs related to the use of the electronic record keeping system were also identified to achieve greater compliance of use of this interface to inform clinical practice. Future research may be conducted following refresher training to ascertain the frequency of access of SCJ: Risk notes to inform patient care.

The survey provided guidance as to the viability of the frequency of renewal of documentation. It was the opinion of clinical teams that the SCJ: Risk should be reviewed every three months if a patient was identified as Tilt high-risk (or following a notable incident), or every twelve months in preparation for a patient's annual review if no Tilt high-risk had been identified. The provisional completion of documentation before a patient's admission was also perceived to be of importance. These assertions have been reflected in hospital policy documentation to provide a framework of best practice. Ongoing audit will ensure monitoring of consistency of use in the ongoing maintenance of the system.

The majority of respondents involved in the evaluation surveys confirmed that the SCJ: Risk was completed in a multidisciplinary forum. Multidisciplinary team (MDT) decision-making was therefore a critical component of the system of

structured clinical judgement. The dynamic nature of the assessment format allowed a structure to aid communication between professional disciplines in the identification of relevant risk factors, specifying those that are changeable and allowed 'flexibility to change violence risk communications should conditions change' (p.176, cited in Douglas and Webster, 1999). In this way, the construction of 'structured interdisciplinary plans of care' (or integrated care pathways, ICPs) may be facilitated. It follows that the presence of all multidisciplinary members theoretically allowed shared understanding of present and protective risk factors and the steps required to address an individual patient's problem (Webster and Hucker, 2007). Testing of this assertion will necessitate future investigation. Findings of the present study indicated a that use of the Risk Management and Scenario Planning portions of the system were perceived to be less robust than other sections of the document. The effective construction and implementation of risk management plans is investigated further in Chapter Six.

The present Chapter investigated the perceived attendance of disciplines at clinical team meetings. Future investigation may warrant investigation of actual representation of various professional grades. A comparison between perceived (qualitative) and actual (quantitative) attendance may be of interest to ascertain reliable rates of engagement and subsequent sharing of understanding of risk assessment and associated management plans (achieved by audit of attendance via the electronic record keeping system).

Problems with wide scale implementation of the system which may have resulted in resistance of use and non-compliance to the system were anticipated, and

controlled for following the pilot phase. Unanticipated problems during the initial months of the implementation phase were managed by a steering group and designated team that acted as a resource to provide assistance to clinical teams on a ward location (e.g. clarification of documentation, supplementation of training needs). Despite this initial investment of additional resources, a proportion of respondents indicated that implementation of the system had significantly impacted upon existing clinical resources, and opinion was divided as to the perceived usefulness of a contact person external to the clinical team (Research Assistant), and nominated contact (representative from each Directorate). Qualitative feedback indicated that some clinical staff did not perceive the function of Research Assistants as 'consultants' to clinical teams to have sufficient expertise to adequately advise teams as to the assessment and management of patient risk, and so impacted upon the perceived usefulness of the team as an additional resource.

An impact upon current clinical practice in terms of time to complete SCJ: Risk documentation was anticipated. SCJ: Risk discussions within a multidisciplinary meeting took in the region of one and a half hours per patient. However, this timeframe accounted for discussion and documentation of dynamic risk factors, and the final risk judgement only. The Historical items were completed in advance of this meeting by the dedicated SCJ: Risk team (see Chapter Three), and completion of this section necessitated a minimum of four hours to obtain the relevant information. In addition, the documentation of Risk Scenario Planning sections could increase the time to complete the document ranging from between half an hour to one hour. The total time required to complete an SCJ: Risk was therefore in the region of six hours. In contrast, HCR-20 discussions may be completed in the

region of forty-five minutes. Preparation of Historical items of the HCR-20 conversely equates to a minimum of two hours. The difference in time to complete the additional items of the SCJ: Risk (of approximately an additional three hours and fifteen minutes) therefore has clinical service implications, and demands the additional resources of the clinical team. The collective effort of eight multidisciplinary team members typically involved in SCJ: Risk discussions (see Chapter Three), equates to an additional six hours per patient, compared to completion of the parent version.

Qualitative feedback indicated that although the system involved the scheduling of additional discussions (involving the time and attendance of all multidisciplinary members), the use of the system had provided a framework for ongoing clinical team meetings, and was perceived to be beneficial to communication of relevant patient factors on a regular basis. Survey of the views of clinical team members as to the perceived clarity and relevance of SCJ: Risk documentation allowed for the identification of ways in which the system may be developed in the future. It was apparent from user feedback that to increase the perceived clarity portions items relating to Suicide/Self-harm and Risk Scenario Planning, documentation would necessitate revision. A greater clarity of expression would also aid user understanding as to the context of the risk related judgement when documenting the Tilt High Risk Summary section.

When responses of clinical team members were summed to ascertain the relevance of HCR-20 total subscales and SCJ: Risk total subscales, the original document was perceived to have greater relevance. Similarly, the individual

subscales of the HCR-20 were perceived to have greater relevance than SCJ: Risk additional subscales. This finding is important to the introduction of the system within clinical practice. By nature of the HCR-20 comprising fewer items, completion of documentation would demand less time on the part of a clinical team. The additional Historical (10 items), Suicide/Self-harm (S, 5 items), Vulnerability (V, 5 items), Escape (E, 5 items), Risk Scenario (RM2, 5 items), Tilt High Risk Summary sheet and associated Risk Management Plans necessitate extra time for discussion, recording and review of items. If the additional items are perceived to have less relevance, than their inclusion in the system of structured clinical judgement may be problematic. It is for this reason that as part of the validation of the SCJ: Risk, it will be important to establish in an empirical fashion the relevance of these items, and the results disseminated to clinical teams. A comparison between the perceived and actual relevance of HCR-20 and SCJ: Risk items may therefore be established. This will be the focus of subsequent Chapters (Chapters Five and Six).

4.11.1 Limitations of the Present Study

To ensure adherence to ethical guidelines, the evaluation survey at the time of pilot and implementation was presented to the SCJ: Risk steering group (see Chapter Three) who advised as to the relevance of questions. The present investigation of the evaluation of the system of structured professional judgement may be critiqued in terms of the design. The restrictions of the steering group and ethical requirements influenced the methodology of the study. The original survey distributed at the pilot phase differed from that at the time of implementation. A direct comparison of the overall perceived usability and utility of the system at two points in time was not possible. However, of the items that were directly comparable, it was apparent that

the system was perceived more positively following the pilot phase than the implementation phase. Clinical teams involved in the earlier phase comprised individuals who were involved in the conceptualisation of the SCJ: Risk, and who were original members of the SCJ: Risk steering group. Adherence to the system was not mandatory as it was at the time of implementation. The respondents from the pilot phase may therefore be labelled 'enthusiasts' of the project by their nature in volunteering to pilot the system before large-scale implementation. The overall perceived utility of the system was less at the time of implementation. This may be as a result of use as a result of a hospital directive rather than a desire of clinicians to implement the system in clinical practice.

On the recommendation of the steering group, the questionnaire design included a series of statements to which respondents logged their level of agreement. The majority of questions were posed in a positive way, for example 'the SCJ is useful overall'. A more methodologically robust design involving positive and negative statements was presented to the group, but rejected. A balance between positive and negative statements in Likert-style questionnaires would have been beneficial so as to avoid a response acquiescence set, (or bias effect) where the user may have a tendency to consistently tick an agree box rather than disagree. The design of the questionnaire may therefore have been enhanced by inclusion of an equal number of positive and negative statements, presented in a randomised order (Gross, 2003).

In addition to the design of the evaluation of the system of professional judgement, the present investigation may be critiqued in terms of the low return rate

of surveys. Interpretation of results must bear the low response rate of Women's Service in mind. Only six individuals within this Directorate responded to the survey, so the proportion of responses were based on very low numbers. The extent to which findings may be generalised to represent the view of all members within this Directorate may therefore be seen as problematic.

Responses between professional grades were not analysed. Adherence to ethical guidelines meant that the discipline of the respondent was not analysed due to a requirement to preserve anonymity. The perception of use of the system by discipline and professional grade would have been of interest to the present investigation. Comparisons of the perceived utility of the system between nursing staff, psychology, occupational therapy, psychiatry, social work, medical staff, security liaison and other members comprising the multidisciplinary team would have been of relevance, and may have had implications for the identification of training needs and development of the system.

4.12 Chapter Summary

The focus of the present chapter was to investigate the perceived clinical usability and utility of the SCJ: Risk that was piloted and subsequently implemented within a special hospital. The investigation enabled nine core issues related to clinical team experiences to be evaluated. This has enabled a contribution to the understanding of the risk assessment and management of the user interface of the system of structured clinical judgement. Overall, in answer to the central question posed, the SCJ: Risk system was perceived as usable and useful by clinical team members. Staff feedback indicative of disagreement to this assertion in any core area

related to the use of the system has allowed the formulation and identification of ways to improve documentation. As part of the validation process, on the basis of these findings, the system may continue to be developed in an attempt to ensure future usability. The investigation has contributed to an understanding of the utility of the system which may be used to inform continued fidelity and consistency of use of the system in clinical practice.

Chapter Five

Predictive Validity

A Prediction-Based Paradigm of Risk

5.1 Introduction

The aim of the present investigation was to evaluate the use of a system of structured professional judgement within a high-secure hospital. It has been established that there is a need for robust, reliable and clinically viable methods for assisting mental health professionals assess and manage violence risk (Chapter Two). The Tilt review of security was a prominent development that identified the need for the assessment and management of behaviours relevant to the needs of high-secure forensic psychiatric hospitals (Chapter Three).

The structured professional judgement (SPJ) approach has been advocated as the most clinically useful method of structuring and documenting risk-related decisions, and is purported to improve clinicians' ability to identify 'high-risk' patients for whom interventions may be targeted to minimise risk (Daffern, 2007). Many professional guidelines adhere to the SPJ approach, including the HCR-20 violence risk assessment scheme (Webster, Douglas, Eaves and Hart, 1997). The SCJ: Risk, as an adaptation of the HCR-20, was developed and implemented within clinical practice to assist multidisciplinary teams assess and manage intra-institutional behaviours relevant to the needs of a high-secure forensic psychiatric hospital. The scheme was designed to assist in the evaluation of the presence or absence of operationally defined risk factors to achieve a final summary judgement to identify patients deemed as 'high risk'.

As part of the evaluation of the SCJ: Risk, it was important to investigate the relevance of, and relationship between risk related decisions (by evaluation of risk factors and subscales) and subsequent intra-institutional behaviour relevant to the

needs of a high-secure forensic setting. This relationship was the focus of the present research Chapter.

The predictive utility of the HCR-20 has been established, as illustrated by the large number of studies presented below. The focus of the present chapter was to establish the predictive validity of the SCJ: Risk as an adaptation of the HCR-20 within a forensic psychiatric population in conditions of high security. Before description of the investigation, it is important to understand important concepts relating to risk prediction, including success and failure, and statistical and methodological issues within the context of behaviours of relevance to the security requirements of a high-secure hospital.

5.1.1 Concepts of Risk

The *prediction* of risk within an offending population is critical to the prevention of harm to the public and the individual offender. Risk prediction is possible by the application of a risk assessment process. The process of risk *assessment* impacts upon the validity of the prediction, and, as such, it is necessary to subject it to close scrutiny. The validity of the prediction of risk is necessary to inform the process of risk *management.* The correct identification of risk is required to minimise and contain the identified behaviour by application of treatment, supervision and intervention strategies according to individual need. (The process of risk management is explored in more detail in Chapter Six).

A process of *risk assessment* examines the context and detail of past behaviours considered to present as risks, in the light of current circumstances.

Predictions may then be made as to the likelihood of future risk behaviours. An effective assessment provides a formulation on which judgements and plans are based. *Risk management* is a response to the risk judgement, and incorporates a statement of plans and allocation of responsibilities to contain minimise or ameliorate behaviour.

A process of *risk decision-making* bridges the gap between assessment and management. *Risk factors,* or circumstances affecting the likelihood of risk behaviours are considered to form the basis of an overall judgement. Risk judgements, or predictions, therefore form a foundation of the subsequent risk management plan for an individual judged as demonstrating behaviour deemed to be a risk.

5.2 Understanding the Prediction of Risk. Success and Failure in the Prediction of Risk

A number of methodological factors must be considered and understood when establishing risk within a high-secure hospital utilising a system of SPJ. These include margins or error, base rates, and statistical techniques used to investigate validity.

5.2.1 Margins of Error

Monahan (1981) outlines a method of looking at success and failure in the prediction of risk. This is illustrated in Figure 5.1 and is referred to as a 2x2 contingency table. A method of risk prediction can be said to be successful if a judgement that an individual will act dangerously (D) is proven correct, giving a

"true positive" (TP, or sensitivity). A prediction of "not dangerous" (ND) may be confirmed as a "true negative" (TN, or specificity) if no risky behaviour is demonstrated. In this way these judgements, or risk predictions are correct.

Figure 5.1. Possible Outcomes According to Type of Prediction

(adapted from Webster, Harris, Rice, Corimer and Quinsey, 1994)

		Outcome	
		ND (non-reoffenders)	D (reoffenders)
Prediction	ND Low risk	TN (specificity)	FN (Type 2 error)
	D High risk	FP (Type 1 error)	TP (sensitivity)

A risk measure may be complicated by error. A false negative (FN) may result when an individual has been judged to be non-dangerous, but commits a violent act. It is this judgement that poses the greatest concern to the prediction of risk within an offending population. A false prediction resulting in injury or death is a concern for mental health (and other) professionals within the criminal justice system. A false negative may have implications on a decision makers' conscience, and may have a legal and professional sanction as a result.

Webster and Hucker (2007) recognise that Monahan's contingency table is useful to illustrate the problematic nature of violence prediction. They cite Mossman's (2000) critique that invites a reader to assume 1 in 100 will offend, and

that application of a scheme that has 95% accuracy to a population of 100 offenders would therefore result in the correct identification of 95 of these offenders. Ninety-five per cent accuracy although impressive would mean that 5% of those assessed would be a false positive error. Application of these odds to the current prison population of approximately 80,000 would mean that 4,000 of those detained would be incorrectly identified as potential reoffenders, when no such risk would be displayed. Within the context of the present study, for a population of 400 patients, 20 would be falsely identified as violent. No scheme yielding this level of accuracy exists, and it is therefore likely that mental health professionals will inevitably continue to make prediction errors, with varying consequences. The probability of error is impacted by further the type of scheme used, and the risk assessment process that is adopted. It is for this reason that the effective application of a risk assessment process following evidence-based practice is essential to minimise the chance of prediction error.

Instances of false negatives have been reported in the media. The recent case of Peter Bryan, labelled "the cannibal" by police officers illustrates a 'trial by media'. Mr Bryan had previously been convicted for killing in 1993 and was sent to Rampton Hospital in 1994. Following a mental health review tribunal he was released in 2002 to the care of a local East London hospital. He later lived as a care in the community out-patient, and attended a locked ward on a voluntary basis. Mr Bryan discharged himself days before he attacked, killed and attempted to eat his friend. He was sent on remand to Broadmoor secure special hospital where, two months later, he attacked and killed a fellow patient.

The media reported the public's lack of confidence in the mental health system, blaming the system for the last two deaths. The Times reported the response of a relative of Mr Bryan as stating: "The mental health workers were responsible for monitoring Peter but they failed. They are to blame." Other media criticised the decision to release Mr Bryan from Rampton Hospital. When passing sentence, Judge Forrester said: "In a case such as this, the protection of the public must come before any other consideration." A false negative prediction is therefore a possible outcome. An effective method of risk assessment must therefore be employed in making a judgement as to risks associated to an individual.

A false positive is an error in prediction in the other direction (FP), where an overcautious judgement may be made. A decision may be reached that an individual presents a risk of committing a violent act, however, the reality would be that if the individual was released to conditions of lower security, or released, no violence would occur. Such an error in decision-making may result in the detention of an individual within a setting of a nature that is not commensurate with their actual risk.

The Baxtrom *v.* Herald (1966) case is an ecologically valid illustration of false positive prediction error. The case was a landmark in USA risk assessment history and provided a rare opportunity for scientific study. Johnnie Baxtrom was convicted for assault and was transferred to New York's Dannemora State Hospital for the Criminally Insane. He therefore served his sentence in a hospital prison as a mentally ill inmate. On appeal, nearly one thousand inmates detained at the institution were transferred to civil hospitals following a ruling by the Supreme Court that the procedure was unconstitutional (Webster *et al*, 1994, p.2). As a result of

the ruling, nine hundred and sixty-six patients were released from a maximum-security setting to the community or lower security setting, ninety-eight of whom were released into the community.

Steadman and Cocozza, (1974) conducted a four-year follow up and found only a 20% reconviction rate. Reconvictions were mainly for minor offences. As a result of the ruling, it was possible to test the positive predictions of dangerousness (the reason for their detention) for this released population. Fifty-nine of the ninety-eight cases resulted in TNs (as predicted, violent behaviour was not observed) and eleven cases displayed TPs (predicted violent behaviour subsequently manifest). Twenty-five cases did not display violent behaviour as was predicted (FPs), and three individuals displayed violent behaviour that was not anticipated (FNs). However, the study was reliant upon reporting using official records, and so instances of violence may be under-reported.

The predicted level of violent conduct upon release was therefore overcautious. Steadman and Cocozza (1974) described the results: "...we have used a meat axe to kill a spider" (p.14). The Baxtrom case is a further illustration of the need for an effective system of risk assessment to inform decisions from the courts, to care plans and mental health tribunals. Clinical opinion may therefore be seen as a critical element in advising judgement for future violence, including impacting upon a decision of the conditions of confinement within the criminal justice system.

Monahan's 2x2 contingency table may be applied to risk decision-making judgements within high-secure hospitals. The implications of error within this

setting may be understood in the following ways: A FP (where an over prediction of high-risk behaviour occurs) may result in lower-risk offenders not only being allocated conditions of security inconsistent with their need, but also allocation of treatment intervention of a duration and cost that is not necessary. Over-caution may therefore result in unnecessary detainment and allocation of resources to the detriment of the individual and the institution. Conversely, a FN error (e.g. at MHRT leading to absolute discharge or conditions of lesser security) may afford opportunities for high-risk offenders to reoffend in the absence of treatment and intervention provisions.

When evaluating the validity of a risk assessment scheme, the predictive accuracy must be established. The evaluation of the validity of the SCJ: Risk as an assessment scheme must compare prediction with actual outcome. Positive Predictive Accuracy (PPA, or *positive predictive power;* PPP) should be established and negative predictive accuracy (NPA, or *negative predictive power;* NPP) of the system in terms of intra-institutional behaviour (criterion variables of interest) will be subject to scrutiny. ***Criterion variables*** within the present study (as defined by the Tilt review of security) include an assessment of SCJ: Risk factors and subscales related to; (i) violence, (ii) risk of suicide/self-harm, (iii) vulnerability of risk from others, (iv) risk of escape, (v) risk of action in collaboration with others to subvert security and safety.

When establishing PPA, the additive value of true positives and false positives are divided by the number of true positives (PPA=TP/ (TPs + FPs)). This will yield the percentage of offenders identified as high-risk who subsequently

display the criterion variables of interest (Craig, Beech & Browne, 2007). Negative predictive accuracy (NPA) may be established by identifying the percentage of the non-high-risk group who did not subsequently display intra-institutional behaviour of interest (NPA = TN/ (FN/TN). In this way, correct predictions of risk behaviour (PPA) or non-violence (NPA) may be established.

5.2.2 Base Rates

When evaluating the predictive accuracy of a risk assessment scheme, it is important to understand the *base rates* of the criterion variables of interest (listed above). The base rate (BR) is simply the proportion of the sample that actually present evidence of the criterion variable of interest (or the proportion that *actually* reoffend). The base rate can be established by taking the sum of the true positives and false negatives divided by the total sample (BR=(TP+FN) / T)). After establishing and taking into account the baserate, it is possible to evaluate the accuracy of both positive and negative predictions (or relative improvement over chance (RIOC)). The base rate therefore yields a representation of 'prior probabilities that these predictions would be correct if left to chance alone' (Douglas & Webster, 1999). Establishing base rates of the intra-institutional behaviour of interest is critical to the present study. Craig, Beech and Browne (2007) and Duggan (2007) assert that if base rates (or prevalence) of the criterion variable (violence and other behaviours) are low it is almost impossible to predict the outcome behaviour of interest.

In addition to base rates, it is important to establish selection ratios (SRs). SRs may be understood as the 'proportion of the sample that was *predicted* to

reoffend' (Craig *et al.*, 2007). When the BR is smaller than the SR, the number of false positive prediction errors (FPs) will exceed the number of false negative errors (FNs). Overcautious judgements and the incorrect identification of high-risk offenders will therefore result. Conversely, if the SR is smaller than the BR, FN judgements will exceed FP judgements. Under cautious judgements may therefore result in negative consequences as high-risk offenders will be incorrectly identified as presenting as low-risk. The SR has an impact upon the accuracy of judgements in predicting risk. If the sample that was predicted to reoffend (SR) is low, the number of recidivists correctly identified will be high, raising the chance of a FP error. However, if a large number of the sample are predicted to reoffend (high SR), a FN error is more likely, resulting in a greater chance of TP error.

Understanding of the predictive accuracy of risk assessment schemes is therefore dependent on a sound understanding of base rates of the criterion variables of interest. A further methodological issue is consideration of the 'criterion or threshold of defining "high risk"' (Douglas and Webster, 1999). The cut off point between behaviours deemed to be high or low risk are therefore base rate dependent. Issues relating to sensitivity and specificity result as the selection of too low a threshold may yield more TPs, where too high a threshold may yield more TNs.

5.3 Statistical Methods Investigating the Predictive Validity of Measures

5.3.1 Receiver Operating Characteristics (ROC)

The methodological issues above are important to incorporate when evaluating the predictive validity of a system of risk assessment and management. The predictive accuracy and effect size of risk assessment schemes may be ascertained via the application of sophisticated statistical techniques such as Receiver Operating Characteristic (ROC) analysis. The analysis allows for the comparison of the percentage of true positive rate (sensitivity) against the percentage of false positive rate (1-specificity). By graphical representation, the ROC curve allows interpretation of the overall accuracy of the predictive judgement.

Accuracy of judgment may be understood by interpretation of the area under the curve (AUC). An AUC of .80 would mean that there is an 80% chance of an individual actually displaying the criterion variable of interest (e.g. violence) and would score above the set threshold for that behaviour (or that a "randomly selected 'recidivist' would have a higher rating of risk than a randomly selected non-recidivist" (Craig *et al*, 2007). Conversely, there is an 80% chance that an individual not actually displaying the violent behaviour would score below this threshold.

ROC analyses have often been used in the last decade to assess the predictive accuracy of the HCR-20 (Macpherson and Kevan, 2004). Several HCR-20 studies investigating the predictive utility of the tool have used this analysis, and results are reported in terms of the statistical indexes that ROC produces (as shown by studies described below).

ROC analyses therefore allow for the comparison of various thresholds on the predictor measure for offering predictions of violence or other intra-institutional behaviours of interest. The application of the technique is appropriate in the analysis of data comprised of a continuous predictor variable (e.g. HCR-20 scale scores) and a dichotomous dependent measure (or criterion variable in the sample, that is the presence or absence of behaviour). An overall index of accuracy is yielded, which accounts for all possible thresholds, simple identification of the optimal (best) threshold, and comparison of two or more predictors (Douglas and Kropp, 2002).

When evaluating the predictive accuracy of a system of risk assessment, it is therefore important to understand the effect size of the prediction judgement made. The following AUCs would yield the following interpretation of predictive accuracy: 0, perfect negative; .50, chance; 1, perfect positive. Any AUC above .50 is indicative of an increase in predictive accuracy. In terms of statistical significance and effect size, no consensus as to a standardised interpretation of AUC estimates exists (Grann and Langstrom, 2007). However, it has been proposed that the following interpretations of AUC values are appropriate: 'Below 0.60 = low accuracy; 0.60 to 0.70 = marginal accuracy; 0.70 to 0.80 = modest accuracy; 0.80-0.90 = moderate accuracy; and greater than 0.90 = high accuracy' (Sjostedt and Grann, 2002, cited in Grann and Langstrom, 2007). Douglas and Kropp (2002) define AUC values of .70 to .75 and above to be considered moderate to large. For the purposes of the present investigation of the predictive validity of a system of structured professional judgement, it will therefore be important to establish predictive accuracy in the region of 0.65 or above.

5.4 Recidivism in the Community and within Institutions

5.4.1 Post-Discharge Violence Recidivism

Public interest has tended to focus on the reoffending of psychiatric patients, and there is a heightened apprehension that individuals released from secure units will reoffend (compared to individuals without the presence of a mental disorder). Maden, Scott, Burnett, Lewis and Skapinakis (2004), investigated the prevalence of patient recidivism after discharge. Of the 959 patients discharged from medium secure units in England and Wales over a two year period, 15% (n=145) were subsequently convicted of an offence, of whom, 6% (n=60) committed a violent offence. The study demonstrated that, in reality, the rate of violent offending upon release within this population was uncommon. The study found that within the recidivist group, the strongest predictor of offending was previous offending. Psychiatric diagnosis did not yield a significant association with reoffending. The findings therefore illustrate that the perceived association between high probabilities of reoffending by discharged psychiatric patients is distorted.

Formal risk management strategies and treatment interventions prevalent within forensic psychiatric services are designed and implemented with the expectation that the risk of reoffending will be reduced. Coid, Hickey, Kahtan, Zhang and Yang (2007) conducted a large-scale (n=1344) longitudinal study to investigate the prevalence and incidence of reoffending by patients who had previously been admitted to medium secure forensic services. Over an average period of 6.2 years, over a third of men, and one in seven women were subsequently convicted of a criminal offence (including "...offences of violence against the person; sexual offences; arson; acquisitive offences or burglary, theft, fraud and

deception and robbery" (Coid *et al.*, 2007). One in eight men and one in sixteen females were convicted of 'grave' offences (including "...homicide, serious wounding, rape, buggery, arson, robbery and aggrevated burglary" (Coid *et al.*, 2007). These findings indicate that patients discharged from medium secure units continued to present risks. However, in relation to violence risk, fourteen percent of convictions were relevant to violent offences. This prevalence is therefore relatively low, considering this population was originally detained under the Mental Health Act, due to their violent and criminal behaviour.

The study by Coid *et al.*, (2007) also identified the risk factors that are predictive of offending. Effective predictors included static risk factors, such as "...gender, younger age, early onset offending, previous convictions and a comorbid or primary diagnosis of personality disorders". Clinical risk factors did not yield statistically robust relationships with the prevalence of reoffending after discharge. However, the authors recognised that the identification of dynamic risk factors may assist in the allocation of appropriate interventions after discharge, thus leading to a reduction in reoffending. Studies investigating the prevalence of reconviction for patients previously detained within medium secure forensic services therefore illustrate a low incidence of reoffending, particularly with relevance to violent offences.

5.4.2 Intra-Institutional Violence

Research investigating the assessment and management of intra-institutional violence within psychiatric hospital settings has been problematic (Drinkwater, 1982). Early research was conducted with the aim of assessing the impact of risk to the community if locked wards were opened. One of the earliest studies by Stierlin (1956) concluded that aggression and violence in psychiatric hospitals was of a minor nature. An early systematic study of aggression in English psychiatric hospitals found a high number of incidents involving female patients (Folkhard, 1957). Larkin, Murtagh and Jones' (1988) review of studies reported that no further research was conducted in British special hospitals until 1980. Fottrell (1980, cited in Larkin *et al.*, p.226) conducted research investigating the extent and severity of violence in British special hospitals and found; (a) "that the vast majority of patients in psychiatric hospitals are non-violent, and; (b) that despite many incidents of petty violence, serious violence is rare". However, the investigation concluded that: "This study concerns only a portion of psychiatric illness and violence, as the more seriously violent patients will be found in special hospitals". Dietz and Rada (1982, cited in Larkin *et al.*, p.227) commented at that time that: "There have been too few good quantitative studies of intra-institutional violence". Most studies investigating the efficacy of measures designed to facilitate professionals' assessment of risk do so for single-point predictions (e.g. consideration at MHRT for discharge to the community).

5.5 The Predictive Utility of the HCR-20

Guy and Wilson (2007) conducted an extensive search of published literature lending empirical support of relevance of HCR-20 risk factors in predicting violence. They found in the region of 2500 articles published in peer-reviewed journals between 1997 and 2005 to be of relevance. There is a wealth of literature examining the use of the HCR-20 in predicting violence (Belfrage, Franson and Strand, 2000; Douglas and Kropp, 2002; Dolan and Doyle, 2000) and the tool has shown good inter-rater reliability. Studies have shown the HCR-20 risk assessment tool to have good concurrent validity with other well-validated measures when applied to a correctional sample (e.g. The Violence Risk Appraisal Guide (VRAG) (Harris, Rice and Quinsey, 1993); Psychopathy Checklist (Revised), (PCL-R) (Hare, 1991). However, Doyle, Dolan and McGovern (2002), suggest that empirical support for the predictive validity of North American risk assessment measures in Britain has been absent until relatively recently.

Violent behaviour is often an admission criterion for mental health facilities, such as a secure hospital. Johnson and Taylor (2001) reported 34% of new admissions to psychiatric hospitals in the year 2000 resulted from convictions or charges of violence against the person. Validity studies have included research on violent recidivism in discharged psychiatric patients (Dernevik, Grann, and Johannson, 2002). Studies have also focused on the prediction of intra-institutional violence in maximum-security correctional settings (Belfrage *et al.*, 2000, McNeil and Binder, 1995; Nichols, Vincent, Whitemoor and Ogloff, 1999; Muller-Isberner, Sommer, Ozokayay and Freese, 1999). Investigation has also included validation of

populations of disordered offenders in a variety of settings (Dernevik *et al.* 2002; Douglas and Webster, 1999; Strand, Belfrage, Franson and Lavender, 1999).

5.5.1 Predictability of Intra-Institutional Violence

Investigation of the predictive validity of the HCR-20 for intra-institutional violence has produced inconsistent findings. Belfrage *et al.*, (2000) found high predictive validity for Clinical and Risk management items, but almost none for Historical items when predicting inpatient violence. Dolan and Doyle (2000) reported a number of studies reporting an area under the curve AUC of between 0.63 and 0.80. Doyle *et al.*, (2002) conducted a retrospective investigation of the validity of North American risk assessment tools in predicting intra-institutional violence in England. The Historical scale scores of the HCR-20 yielded a positive relationship to in-patient violence, reporting statistically significant AUC's of (i) 0.70 for 'Any Violence'; and (ii) 0.66 for 'Level 1 Violence' (physical violence resulting in injury). The H-10 item subscale yielded statistically significant AUCs between 'violent' and 'non-violent' group mean scores (Macpherson and Kevan, 2004).

Dernevik, *et al.*, (2002) found the tool to be moderately predictive, with Historical Total factors having the greatest accuracy (AUC of 0.68 for HCR-20 in predicting any incident of violence; and AUC of 0.70 for subscale item H-10). Grevatt, Thomas-Peter and Hughes (2004) found the Clinical subscale to be predictive (AUC range 0.65 and 0.72), and found a number of items within subscales to be particularly predictive of inpatient violence. Macpherson and Kevan (2004) found Historical, Clinical and HCR-20 Total indices to be differentially predictive of different types of inpatient violence (AUC ranging between 0.65 and 0.72), and

found only the Clinical scale of the tool to be predictive of physical violence (AUC of 0.65) within a maximum-security hospital. Strand, *et al.*, (1999) reported overall predictive validity (AUC of 0.80), and high validity for Clinical and Risk management factors, but low or no validity for Historical items. Grevatt *et al.*, (2004) has suggested that the variability of these results may be explained by the differences between settings and designs of these studies, or by inherent differences within the samples.

Table 5.1 presents an overview of other studies conducted within forensic psychiatric settings investigating the predictive validity of the HCR-20. The predictive validity and reliability of the HCR-20 has been demonstrated in a variety of settings. Evidence therefore suggests that the scheme has efficiency in its application to assessing risk for violence in offenders with mental illness and personality disorders within forensic institutional settings. The table displays the means, standard deviations and validity indices of studies investigating the predictive accuracy of the HCR-20 in predicting violent intra-institutional behaviour within forensic psychiatric settings (adapted from Douglas, Guy and Weir, 2007).

Table 5.1. Studies Reporting the Predictive Accuracy of the HCR-20 within Forensic Institutional Settings

Authors	*N*	HCR-20 Total	H Scale	C Scale	R Scale	AUC Validity Indicies
de Vogel, de Ruiter, Hildebrand, Bos and Van de Ven (2004)	120	22.8-32.0 (range)	12.6 – 16.0 (range)	3.7 – 7.0 (range)	5.6 – 9.1 (range)	AUC Total = .82
Dolan and Khawaja (2004)	70	19.4 (5.7)	11.8 (3.7)	3.3 (2.2)	4.1 (1.5)	AUC range across levels of violence = .67 to .85
Douglas and Ogloff (2003)	100	24.7 (4.6)	14.4 (2.8)	4.7 (2.8)	5.9 (1.5)	AUC range across levels of violence = .67 to .70
Grann, Belfrage and Tengstrom (2000)	404	N/A	11.8 (3.7)	N/A	N.A	AUC range across levels of violence =.66 to .71
Gray, Snowden, MacCulloch, Phillips, Taylor and MacCulloch (2004)	315	19.9 (7.0)	11.4 (4.0)	3.8 (2.4)	4.7 (2.6)	AUC Total = .61; AUC H total = .62; AUC C total = .48; AUC R total = .62
Nicholls, Vincent and Whittemoor (1999)	125	20.0 (5.3)	11.2 (3.6)	5.1 (2.5)	3.2 (1.2)	AUC range across levels of violence =.68 to.77
Ross, Hart and Webster (2001)	103	20.2 (5.6)	12.7 (3.5)	3.5 (2.1)	4.1 (2.3)	AUC range across levels of violence =.57 to .76
Strand, Belfrage, Franson and Lavender (1999)	40	26.4 (8.0)	14.4 (4.4)	5.2 (2.5)	6.8 (2.7)	AUC Total = .80; AUC H total = .76
Urheim, Jakobsen and Rasmussen (2003)	51	23.5 (6.8)	13.8 (4.3)	5.9 (1.9)	3.9 (2.0)	AUC Total = .82; AUC H total = .77; AUC C total = .73; AUC R total = .76

5.6 Prediction of Risk in Response to the Needs of a High-Secure Forensic Setting

The studies presented above illustrate the predictive utility of the HCR-20 within forensic institutional settings. With relevance to the present study, the Tilt review of security identified that a system for assessing violence (immediate harm to others) should be present within high-secure hospitals. In this way, it was anticipated by the current investigator that the use of the HCR-20 as part of the SCJ: Risk would assist clinical teams at Rampton Hospital make and document risk-related decisions of the likelihood of future violent behaviour within the forensic institution. In addition to the assessment of risk for violence within this population, the Tilt review of security identified the need to assess additional behaviours relating to risk relevant to a high-secure setting.

When constructing the additional factors of the SCJ: Risk, it was anticipated by the authors of the instrument that the suicide (S), vulnerability (V) and escape (E) items would assist in the evaluation and documentation of behaviours related to risk as identified by the Tilt review. It was therefore necessary to subject the SCJ: Risk to an investigation to ascertain the predictive validity of subscales and individuals risk factors as part of the evaluation as to the usefulness of the system.

It was important to establish the relevance of the subscales and individual risk factors to the outcome behaviours of interest. This initial identification and accurate assessment of risk factors relevant to the needs of a high-secure hospital was an imperative first step in the process of minimising or ameliorating the risk. It was therefore important to establish the predictive accuracy of the SCJ: Risk via

investigation of intra-institutional violence and other behaviours relevant to the setting for which it had been designed.

5.7 The Need for a System of Structuring Clinical Judgement

5.7.1 Aims and Objectives

The reported study examined the validity of the Structured Clinical Judgement: Risk (SCJ: Risk) assessment scheme in predicting intra-institutional behaviour relevant to a high-secure forensic psychiatric hospital. The study also had the objective of investigating any differences in the predictive validity of the SCJ: Risk during two distinct six month time periods. These two time periods reflected documented clinical judgements and recorded intra-institutional behaviour for the six months preceding, and six months subsequent to the formal implementation date of 31st December 2006.

5.7.2 Research Questions

Are SCJ: Risk *subscales* and *individual risk factors* that comprise subscales predictive of future intra-institutional behaviour? (In the context of the present study, intra-institutional behaviour relates to the five Tilt categories of risk related to; (i) the immediate risk of harming others (i.e. violence), (ii) the risk of suicide or self-harm, (iii) the risk of escape, (iv) vulnerability of risk from others, (v) risk of organised action in collaboration with others to subvert security and safety. A further research question was posed. Are any differences in the predictive validity of the SCJ: Risk observed between the two defined six month time periods?

5.7.3 Hypotheses

It was expected that there would be variability between *subscales* and *individual risk items* dependent upon the outcome behaviour of interest. It was anticipated that the judgements made by multidisciplinary teams utilising the SCJ: Risk assessment scheme would predict intra-institutional behaviours of interest with moderate to large statistical effects. It was also expected that larger statistical effect sizes would be observed during the first period of investigation. The rationale for this assertion was that, due to the proximity to the documentation of risk decisions during the first six month period, associated risk management plans may not have had sufficient time to be implemented (compared to the second time period), and so intra-institutional behaviours may be more prevalent during the first period investigated. The hypotheses were:

Hypothesis One

HA_0: There will be no significant differences between the predictive utility of *subscales* of the HCR-20 and SCJ: Risk and the presence of intra-institutional behaviour.

HA_1: There will be significant differences between the predictive utility of *subscales* of the HCR-20 and SCJ: Risk and the presence of intra-institutional behaviour.

Hypothesis Two

HB_0: There will be no significant differences between the predictive utility of the *individual risk factors* of the HCR-20 and SCJ: Risk and the presence of intra-institutional behaviour.

HB_1: There will be significant differences between the predictive utility of the *individual risk factors* of the HCR-20 and SCJ: Risk and the presence of intra-institutional behaviour.

Hypothesis Three

HC_0: Differences between the predictive validity of the HCR-20 and SCJ: Risk systems will *not* be observed between the two time periods under investigation.

HC_1: Differences between the predictive validity of the HCR-20 and SCJ: Risk systems will be observed between the two time periods under investigation.

5.7.4 Method

5.7.4.1 Setting

Rampton Hospital, Nottinghamshire Healthcare NHS Trust (for a full description see Chapter Three).

5.7.4.2 Participants

Two-hundred and seventeen patients detained as inpatients at Rampton Hospital were included in the present study: DSPD *n*=28 (12.9%); PD *n*=51 (23.5%); MH *n*=92 (42.4%); LD *n*=21 (9.7%); WS *n*=25 (11.5%). Each subject's risk had been assessed on at least one occasion by use of the SCJ: Risk system over a twelve month period (01. 07. 2006 and 30.06. 2007). Hospital records of intra-institutional behaviour were also collated during this time as part of routine clinical practice.

The above specified twelve month period was divided into two equal six-month segments to distinguish any differences in intra-institutional behaviour in the six months prior to full-scale implementation (01.07.2006 to 31.12.2006), compared with six months post implementation (01.01.2007 to 30.06.2007).

5.7.4.3 Procedure

The study was approved by the local research and development manager as constituting ongoing service development, and therefore not constituting a separate research study that would require referral to the Trust's Ethics Committee. Existing hospital records were used to collate information related to age, source of admission, ethnicity, marital status, and diagnosis.

Multidisciplinary (MDT) clinical teams completed SCJ: Risk documentation as part of ongoing clinical practice. (For a comprehensive description of the procedure for completion of the SCJ: Risk, please refer to Chapter Three). Consensus judgements related to the relevance of individual SCJ: Risk factors and overall summary of risk were made and documented by clinical teams. Evidenced judgements were then entered into a specifically designed computerised (Access) database to store patient information related to risk. The current investigator attended over one hundred SCJ: Risk MDT discussions to ensure compliance and consistency of use of the system. A random selection of thirty discussions attended indicated that the recording of judgements were accurate and were of a quality to allow the extraction of reliable information.

5.7.4.4 Monitoring

Outcome data related to intra-institutional behaviours of interest were collated using official incident record forms (IR1s). To avoid bias, the present investigator coded data involving clinical incidents as an outcome measure. Patients were identified by hospital number and neither victim nor perpetrator of incidents was identifiable by name. In this way, clinical knowledge of the patient did not impact upon the coding.

Following appointment to the hospital, staff members attend mandatory training in the completion of IR1 forms. Training was designed and delivered with the learning objectives considered to ensure that staff; '...are aware of how to correctly record any incident using the appropriate local template' (NICE guidelines, 2005, p.24). The local template within Rampton Hospital is the IR1 form, routinely completed by hospital staff following notable incidents, including violence, personal accidents, clinical and security incidents, self-harm and missing persons.

The majority of clinical teams commenced use of the SCJ: Risk system between July and December 2006. An organisational directive stipulated that a SCJ: Risk must be completed and documented by MDTs for each patient by 31st December 2006. To ascertain the impact of SCJ: Risk identification and subsequent risk management plans, two six month periods were therefore investigated. The frequency, characteristics and nature of patients' intra-institutional behaviour during a twelve-month period was collated via IR1 data that was subsequently compared with SCJ: Risk data.

5.7.4.5 Measures

5.7.4.5.1 Risk Measure

The SCJ: Risk (Richardson and Hogue, 2006) was used to structure clinical judgements relating to risk. The 20 *individual risk factors* included in the Historical (10), Clinical (5) and Risk (5) *subscales* of the HCR-20, and additional 25 individual risk factors of the SCJ: Risk (relating to Historical (10), Suicide/ Self-harm (5), Vulnerability (5), and Escape (5) were used as *predictor* variables. Clinical teams coded each item by determining the presence or absence of each of the individual risk factors. Items were coded for research purposes accordingly on a 0 – 2 scale. Scores of 0, 1 or 2 were allocated indicating the absence, possibility or presence of relevance of individual risk factors within each subscale.

Scores on the subscales of the SCJ: Risk therefore ranged between 0-40 for Historical items, and 0-10 for all dynamic items. Tilt high-risk summary judgements indicating an overall judgement of immediacy of high risk were also coded (reported in Chapter Six). Subscale scores and cumulative total scores were therefore deemed to be indicative of specific and overall risk of future intra-institutional behaviour relevant to a high-secure hospital setting.

5.7.4.5.2 Behavioural Outcome Measure

Official incident report (IR1) forms were used as the measure of intra-institutional behaviour. Incidents were coded in a comparable way employed by other research (Steadman *et al.*, 1998; Heilbrun, Hart, Hare, Gustafson, Nunez and White, 1998; Doyle *et al.*, 2002). Incidents were coded in relation to the five Tilt categories; ((i) violence, (ii) suicide/self-harm, (iii) escape, (iv) vulnerability and (v) subversion of security).

Violence

For the purpose of the present study, a violent act (or the immediate risk of harming others) was operationalised as; '...actual, attempted or threatened harm to person or persons' (Webster *et al.*, 1997, p.4). Verbal aggression and violent behaviour toward objects were included when defining inpatient violence (Doyle *et al.*, 2002). Intra-institutional violence was coded dichotomously as Level 1 and Level 2, similar to the method first used by the MacArthur Foundation study of community violence (Steadman *et al.*, 1998) and subsequently by Doyle *et al.*, (2002). Violence involving 'physical assault against a person or any violence resulting in injury to a person' was coded Level 1. Violence including 'other aggressive acts, such as threats of violence and property damage' was coded Level 2 (Doyle *et al.*, 2002, p.114). Patients were categorised as 'violent' or 'non-violent' within each of the two levels of violence (Macpherson *et al.*, 2004). This coding system is consistent with the definitions of violence defined within Hospital Trust policy related to violence, abuse and harassment. Policy defines Level 1 violence as *physical assault* and '...the intentional application of force to another without lawful justification resulting in physical injury or personal discomfort'. Level 2 violence

including verbal non/physical assault is defined as the '...use of inappropriate words or behaviours causing distress to an individual and/or constituting harassment'.

Within the two levels of violence, the status of the victim was coded. Within Level 1 violence, physical assault toward staff or another inpatient was ascertained. Within Level 2 incidents violence not resulting in physical injury to another was coded including categories relating to; aggression / hostility, attempted assault, damage to organisational property, harassment (including intimidation toward staff e.g. confrontation questioning competency to do their job) or other attempts of intimidation, restraint of a patient (to prevent anticipated harm following behaviour display warranting a response by application of approved hospital techniques to manage violence and aggression) and threat of physical violence and verbal abuse.

Suicide / Self-Harm

A suicide attempt or episode of self-harm was operationalised as actual, attempted or intended attempt to harm self. The difference in the nature of severity between a suicide attempt / self-harm episode was reflected by the coding criteria adopted. IR1 forms were coded according to four levels. Levels were coded in the following way: Level 1 reflecting significant injury sustained during an attempt to self-harm (with a requirement of intervention reported of a severity to require medical attention (e.g. hospitalisation, attendance at an Accident and Emergency Unit, seen as a 'near miss')); Level 2 indicating a minor injury (e.g. superficial injury, scratches, lacerations, burns, grazes, substances inserted into the eyes, head banging); Level 3 if no injury was sustained (e.g. secreted ligature (towel/clothing), staff observation leading to intervention following attempt to self-ligate; threat of

self-harm, self disclosures of recent attempts (e.g. swallowing a battery), but no signs of injury) and Level 4 indicative of thoughts of self-harm (verbalised by the patient).

The levels were operationally defined from existing codings used when reporting self-harming behaviour as part of the official hospital recording system (IR1s). In this way, intra-institutional behaviour related to the severity of self-harm was gathered in a systematic way. Any evidence of self-harming behaviour during the follow-up was therefore chosen as the criterion variable.

Escape

Escape within the context of the present study may be operationalised as an actual or attempted unauthorised leave from detention. Within the IR1 official hospital recording system, relevant behaviours are coded under the categories of escape from detention, abscond, missing person, and attempt to abscond. Due to the low frequency of such behaviours, intra-institutional behaviours related to escape were not coded according to specific levels (due to the related to problems of base rates described above), but were coded to indicate the presence or absence of such behaviours.

Vulnerability

The vulnerability to risk from others was operationalised as behaviours that related to an individual being victimised, taken advantage of, or exploited by others (Richardson and Hogue, 2006). Such behaviours were routinely categorised within the IR1 recording system as 'harassment toward a patient' (including general, racist and sexual harassment). By utilising the existing hospital recording categorisation

system, intra-institutional behaviour related to vulnerability was coded in a systematic way. Again, due to the low frequency a distinction between severity of such behaviours, specific levels of vulnerability were not ascribed, but the presence or absence was coded.

Subversion of Security

The risk of organised action in collaboration with others to subvert security and safety was operationalised as an attempt or actual compromise of physical or relational security within a high-secure hospital. Behaviours were coded to include evidence of actual or attempted hostage-taking, misuse of drugs or alcohol while detained, knowledge or attempt to obtain security information and a security breach (e.g. key compromise, rooftop demonstration). Similar to the other categories of intra-institutional behaviours of violence, suicide/self-harm, vulnerability and escape, the subversion of security was reported via IR1s. As with incidents relating to vulnerability and escape, to distinguish between levels of behaviours was considered arbitrary given the infrequency of the presence of reported behaviour and associated problems base rates. Behaviour was operationalised and coded independently to ascertain the presence or absence of relevant behaviours. In this way, codings and identification of frequencies and subsequent analysis may be seen as free from experimenter bias.

5.8 Results

5.8.1 Sample Characteristics

The mean age of the total sample of two-hundred and seventeen patients was 40 years (SD 11), with at range of between 20 and 71 years of age (DSPD 37 years (SD 9): PD 40 years (SD 10); MH 41 years (SD 11); LD 42 years (SD 14); WS 36 years (SD 8)). The majority of the subjects were detained under Section 37/41 Hospital Orders with restrictions (120, 47.9%). The remaining patients were detained under Section 47/49 (Home Office transfer) (46, 21.2%); Section 41 (5) (23, 10.6%); Section 3 (Admission for Treatment) (11, 5.1%); Criminal Insanity Act (7, 3.2%); Section 37 Hospital Order (6, 2.8%); Section 37/41 Hospital Order with restrictions (Domestic Violence Crime and Victims Act) (3, 1.4%) and Section 45A (Hospital and Limitation Directions (1, 0.5%).

Most of the sample were White: White British (171, 78%); White Irish (2, 1%); White Other (6, 3%) and Welsh (2, 1%). The remaining proportions of ethnicity included: Caribbean (13, 6%); Pakistani (6, 3%); African (6, 3%); Bangladeshi (1, 0.5%); Indian (1, 0.5%); White and Black Caribbean (5, 2%); White and Black African (2, 1%); White and Asian (1, 0.5%); and Mixed Other (1, 0.5%). Similarly, the most prominent nationality descriptor was British (205, 94.5%), and the remainder Bangladeshi (1, 0.5%); Dutch (1, 0.5%); Ghanian (3, 1%); Nigerian (2, 1%); North African (1, 0.5%) and Pakistani (4, 2%).

A minority of the sample were married (2, 1%), with the remainder categorised as single (183, 85%), divorced, (23, 11%); separated (3, 1%); widowed (3, 1%) or unspecified (3, 1%). All subjects had the presence of a mental disorder

(as defined by the ICD-10 or DSM-IV) and had been judged to represent a grave and immediate risk to others. Thirty per cent (39) of the sample posed a risk to children, and seventeen per cent (37) had a history of sex offending.

5.8.2 Establishing Baserates. Outcome Measures: Intra-institutional Behaviour Relevant to the Security Needs of a High-Secure Hospital

The results of the frequency of intra-institutional behaviour relating to the five Tilt security factors are presented below.

5.8.2.1 Any Intra-institutional Behaviour

Time One

One-hundred and nineteen (55%) of the total sample of two-hundred and seventeen were involved in at least one incident, as recorded by IR1s in the first six month period (T1). The mean number of any intra-institutional behaviour was 4.37 and ranged between 0 and 62 occasions. The Directorates with the highest proportion of reported IR1s were DSPD, where 93% (n=26) of the population displayed adverse behaviours, and 91% of LD (n=19). The remaining Directorates displayed the following trends: PD, n=24 (47%); MH, n=30 (33%); WS n=20, (80%). WS accounted for the highest range of demonstrated behaviours in any one individual (n=62), compared with the following: DSPD (n=0-22); PD (n=0-48); MH (n=0-11); LD (n=0-17). Differences between Directorates may be found in Table D1 (Appendix Three).

Time Two

Similar trends were demonstrated in the second time period of interest. One-hundred and twenty-nine (59%) of the total sample were involved in an incident. The mean number of incidents rose to 5.99 (SD=11.96), range 0-82)). WS had the highest proportion of individuals involved in at least one incident (*n*=24, 96%), followed by LD (*n*=19, 91%), DSPD (*n*=25, 89%), PD (*n*=29, 57%) and MH (*n*=32, 35%). The range of behaviours was greater during this time period, and WS again demonstrated the highest proportion of recorded incidents (*n*=82). The remaining Directorates showed the following range of behaviours: DSPD (*n*=0-46), PD (*n*=0-69), MH (0-10), LD (0-21).

5.8.2.2 Immediate Risk of Harming Others (Violence)

Any Violence

A total of one-hundred and six (49%) of the sample were involved in at least one violent incident during the first six months investigated: DSPD, *n*=23 (82%); PD, *n*=21 (41%); MH, *n*=24 (26%); LD, *n*=18 (86%); WS, *n*=20 (80%). A slightly higher proportion showed behaviour relating to violence during the second period of investigation (*n*=121, 56%): DSPD, *n*=22 (78%); PD, *n*=29 (57%); MH, *n*=29 (32%); LD, *n*=18 (86%); WS, *n*=23 (92%). Table D2 (Appendix Three) provides an explanation of categories of violence within each level, and frequencies (baserates) of IR1s related to each defined incident of violent intra-institutional behaviour.

Level One Violence

During the first time period, nineteen per-cent (*n*=42) of the total population displayed Level One violence: DSPD, *n*=7 (25%); PD, *n*=8 (16%); MH, *n*=10 (11%);

LD, *n*=8 (38%); WS, *n*=9 (36%). Behaviours relevant to Level One Violence at T2 were greater than those observed at T1, as twenty-five per-cent (*n*=55) engaged in physical assault: DSPD, *n*=8 (29%); PD, *n*=11 (22%); MH, *n*=11 (12%); LD, *n*=10 (48%); WS, *n*=15 (60%). Within Level One Violence, fifteen of the total population (7%) physically assaulted staff at T1 and twenty (9%) at T2. Thirty-two patients (15%) physically assaulted another patient over the first six-month period, and forty-one (19%) over the second six-months. The highest number of assaults toward staff were demonstrated at T1 within LD at (*n*=4, 19%), and the lowest was at T2 within MH (*n*=1, 1%). The highest proportion of assaults toward patients were observed within WS, where at T2 fifty-six (*n*=14) engaged in this behaviour. Variations between directorates may be found in Table D2 of Appendix Three.

Level Two Violence

A total of one-hundred and one (47%) of the sample were involved in at least one Level Two Violent incident during the first period of study: DSPD, *n*=22 (79%); PD, *n*=19 (37%); MH, *n*=23 (25%); LD, *n*=17 (81%); WS, *n*=20 (80%). A slightly higher proportion had engaged in the same category of behaviour during the second period of investigation (*n*=114, 53%): DSPD, *n*=23 (82%); PD, *n*=27 (53%); MH, *n*=24 (26%); LD, *n*=17 (81%); WS, *n*=23 (92%). The following numbers and proportions of the sample were involved in at least one of the following types of Level Two Violent behaviour: Aggressive/ hostile toward staff at T1, *n*=17 (8%), T2 *n*=22 (10%); aggressive/hostile toward a patient, T1, *n*=9 (4%), T2, *n*=2 (1%); aggressive/hostile generally (no direct victim), T1, *n*=34 (16%), T2, *n*= 31 (14%); attempted assault towards staff, T1, *n*=20 (95%), T2, *n*= 25 (12%); attempted assault toward a patient T1, *n*=5 (2%), T2, *n*=6 (3%); damage to organisational property T1,

T1, *n*=4 (2%), T2, *n*=8 (4%); harassment towards staff, T1, *n*=9 (4%), T2, *n*=16 (7%); restraint of a patient, T1, *n*=20 (9%), T2, *n*=26 (12%); threat of physical violence toward staff, T1, *n*=33 (15%), T2, *n*=59 (27%); threat of physical violence toward a patient, T1, *n*=25, (12%), T2, *n*=38 (18%); thereat of physical violence in general, T1, *n*=16 (7%), T2, *n*=23 (11%); verbal abuse in general, T1, *n*=62 (29%), T2, *n*=60 (28%); and other behaviour including violence T1, *n*=14 (7%), T2, *n*=19 (9%). Differences between Directorates may be found in Table D2, Appendix Three.

5.8.2.3 Risk of Suicide or Self-harm (Suicide)

Ninety-seven incidents of behaviour related to self-harm/suicide were reported using official hospital recording forms during the twelve months of investigation. The distribution of behaviours was comparable between the two time periods. At T1 a total of forty-eight (22%) of individuals displayed relevant behaviours: DSPD, *n*=10 (36%); PD, *n*=10 (20%); MH, *n*=5 (5%); LD, *n*=8 (38%); WS, *n*=15 (60%). During T2 a total of forty-nine individuals (23%) showed such behaviours: DSPD, *n*=10 (36%); PD, *n*=8 (16%); MH, *n*=4 (4%); LD, *n*=7 (33%); WS, *n*=20 (80%). Frequencies of self-harming behaviour were therefore most prolific in the Directorate of WS, and most infrequent within MH. Table D3 (Appendix Three) provides a descriptor of examples of behaviour within each level and illustrates the frequency of self-harming behaviour. The table also displays descriptors for behaviours relevant to Escape, Vulnerability, and the Subversion of Security. Of the four Levels defined, the following number and proportions of behaviours were displayed:

Level One

Two patients (1%) at T1 and five patients (2%) at T2 sustained significant injuries during an attempted self-harm attempt (constituting Level One behaviours), so the baserate for this behaviour was low. Both individuals at T1, and four individuals at T2 were patients within the Directorate of Women's Service (8% and 16% of the total within that service). The remaining individual was a patient within the PD Directorate.

Level Two

Of the total population under study, forty-three (20%) received minor injuries at T1 and forty-eight (22%) at T2. Within the Directorate of WS, sixty per-cent (*n*=15) at T1 and eighty-four per cent (*n*=21) at T2 displayed self-harming behaviours of the severity defined by Level Two. The following numbers and proportions were observed within the remaining directorates: T1 DSPD, *n*=8 (29%); PD, *n*=9 (18%); MH, *n*=5 (5%); LD, *n*=6 (29%): T2 DSPD, *n*=9 (32%); PD, *n*=7 (14%); MH, *n*=4 (4%); LD, *n*=7 (33%).

Level Three

Twenty-one (10%) individuals at T1, and twenty-two individuals (10%) at T2 attempted to self-harm and did not sustain injury, as defined by Level Three behaviour (*n*=22, 10%). Women's Service demonstrated the highest proportion of this level of behaviour at both time periods investigated (T1 WS, *n*=7 (28%); T2 WS, *n*=13 (52%)). The following number and proportion of this behaviour was observed for the remaining Directorates: T1: DSPD, *n*=4 (14%); PD, *n*=5 (10%); MH, *n*=5

(5%); LD, *n*=4 (19%); T2: DSPD, *n*=5 (18%); PD, *n*=2 (4%); MH, *n*=0 (0%); LD, *n*=2 (10%).

Level Four

Thoughts of self-harm as categorised by Level Four behaviour were not shown by intra-institutional official hospital recordings over the twelve-month period under investigation.

5.8.2.4 Risk of Escape (Escape)

The base rate of behaviour relating to actual, attempted or unauthorised leave from the institution was low (see Table D4, Appendix 3). A total of two incidents (1%) relating to attempts to abscond were observed over the twelve-month period of investigation. Both incidents were observed during T1, whereby one individual within DSPD (4%) and one individual within WS (4%) attempted to exit a secure area (locked door) without a member of hospital staff acting as escort. No attempts or actual behaviour relevant to escape, abscond or missing persons were observed within the high-secure setting.

5.8.2.5 Vulnerability to Risk from Others (Vulnerability)

Incidents relating to the victimisation of an individual were demonstrated during the twelve-month investigation. Eight per-cent (*n*=17) of the total population during T1, and nine per-cent (*n*=20) during T2 experienced a form of victimisation (see Table D4, Appendix 3). The following numbers and proportions within each Directorate were observed: T1 (DSPD, *n*=3 (11%); PD, *n*=2 (4%); MH, *n*=3 (3%); LD, *n*=4 (19%); WS, *n*=0 (0%); T2 DSPD, *n*=2 (7%); PD, *n*=4 (8%); MH, *n*=4 (4%);

LD, *n*=3 (14%); WS, *n*=7 (28%)). The most frequently observed descriptor of vulnerability was whereby a patient was challenged or intimidated by another patient. This descriptor constituted 14 (6%) of the 17 incidents at T1, and 13 (6%) of the 20 at T2. The Directorate with the highest number of related incidents was WS (T1 *n*=5 (20%); T2 *n*=6 (24%)). Incidents related to a patient being harassed sexually by another patient were most frequently observed within WS, where during T1, 5 (20%) instances were recorded. Incidents related to a patient being racially harassed by another patient were observed infrequently (T1 *n*=2, (1%), and T2 *n*=5 (2%) of the total population).

5.8.2.6 Risk of Organised Action in Collaboration with Others to Subvert Security (Subvert Security)

There were no recorded incidents during the twelve-month study relating to a hostage situation or drugs and alcohol misuse within the institution. Behaviours constituting the inappropriate acquisition of security information were observed (see Table D4, Appendix 3). During the first six months of investigation, a total of thirty-six individuals (17%) displayed behaviours related to subversion of security. The Directorate of WS, *n*=12 (48%) and DSPD, *n*=11 (36%) showed the highest incidence of this behaviour at T1. The remaining three Directorates showed a lower frequency of subversive behaviour: PD, *n*=2 (4%); MH, *n*=8 (9%); LD, *n*=3 (14%). A lower proportion was demonstrated during T2 where a total of twenty-nine (13%) incidents were reported. A similar trend to T1 was observed with individuals from DSPD (*n*=5 (18%)), WS (*n*=6 (24%)) and LD (*n*=5 (24%)) demonstrating behaviour considered to be subversive. A lower proportion of behaviour was documented for individuals within the Directorates of PD (*n*=5 (10%)) and MH (*n*=8 (9%)).

5.8.3 Descriptive Characteristics. SCJ: Risk Mean Scores

Descriptive characteristics of SCJ: Risk scores in the sample are displayed in Table 5.2. The sample size for all statistical analyses was 153 at T1 and 217 at T2 (at T1 DSPD, *n*=11; PD, *n*=38; MH, *n*=70; LD, *n*=13; WS, 21 and at T2 DSPD, *n*=28; PD, *n*=51; MH, *n*=92; LD, *n*=21; WS, 25). Each statistical analysis considered HCR-20 factors and the additional variables of the SCJ: Risk system separately to allow for comparisons with previous studies. Mean scores are displayed by Directorate for each of the two time periods.

Table 5.2. Descriptive Characteristics of the SCJ: Risk Assessment Scheme Subtotal and Total Scores within a High-Secure Hospital (Displayed by Directorate)

Measure	Scores	Mean T1	SD	Range	Mean T2	SD	Range
Total Hospital							
HCR-20 Total	0-40	23.99	4.81	13-36	23.17	5.02	13-36
H scale (H1-10)	0-20	15.28	2.94	7-20	15.45	2.83	7-20
C scale	0-10	5.32	2.42	0-10	5.21	2.43	0-10
R scale	0-10	3.59	2.29	0-9	3.56	2.29	0-10
SCJ: Risk total	0-90	26.94	6.95	13-44	30.94	7.99	11-61
H scale (H11-20)	0-20	9.84	3.39	2-20	9.81	3.42	2-20
S scale	0-10	1.37	2.50	0-10	1.30	2.42	0-10
V scale	0-10	3.24	2.93	0-10	2.89	3.40	0-10
E scale	0-10	.93	1.73	0-10	.97	1.68	0-10
H scale (H1-20)	0-40	25.12	5.30	10-37	25.26	5.29	10-37
DSPD							
HCR-20 Total	0-40	25.27	4.05	18-33	24.36	3.31	16-29
H scale (H1-10)	0-20	17.18	1.60	14-20	17.00	1.81	12-20
C scale	0-10	5.50	1.43	3-8	4.64	1.73	2-9
R scale	0-10	3.40	1.96	1-7	3.04	1.81	0-7
SCJ: Risk total	0-90	34.64	5.66	23-44	34.64	6.11	23-47
H scale (H11-20)	0-20	11.27	2.76	6-14	11.50	3.11	6-17
S scale	0-10	2.09	2.84	0-8	1.64	2.64	0-9
V scale	0-10	2.55	2.30	0-7	3.50	2.53	0-9
E scale	0-10	1.55	1.70	0-4	1.00	1.28	0-4
H scale (H1-20)	0-40	28.45	3.86	22-34	28.50	4.27	21-35
PD							
HCR-20 Total	0-40	23.45	5.01	15-36	22.67	5.32	14-35
H scale (H1-10)	0-20	16.63	1.78	12-19	16.39	1.97	12-19
C scale	0-10	3.74	2.54	0-9	3.61	2.47	0-9
R scale	0-10	3.08	2.08	0-9	3.09	2.02	0-8
SCJ: Risk total	0-90	30.50	5.95	20-49	29.86	5.95	18-49
H scale (H11-20)	0-40	10.68	2.70	5-17	10.45	2.98	2-17
S scale	0-10	.82	1.96	0-10	.67	1.73	0-10
V scale	0-10	2.00	2.21	0-8	1.88	2.09	0-8
E scale	0-10	.37	.85	0-3	.47	.99	0-4
H scale (H1-20)	0-40	27.32	2.29	20-35	26.84	3.86	18-35

MH							
HCR-20 Total	0-40	23.23	5.03	13-36	23.47	5.02	13-36
H scale (H1-10)	0-20	14.09	3.23	7-19	14.34	3.10	7-19
C scale	0-10	5.74	2.44	0-10	5.72	2.46	0-10
R scale	0-10	3.40	2.46	0-8	3.45	2.37	0-9
SCJ: Risk total	0-90	26.94	7.39	11-57	27.45	7.28	11-52
H scale (H11-20)	0-40	8.36	3.33	2-16	8.34	3.29	2-16
S scale	0-10	.69	1.51	0-7	.54	1.19	0-6
V scale	0-10	3.29	2.98	0-10	3.60	2.99	0-10
E scale	0-10	.53	1.28	0-7	.64	1.27	0-8
H scale (H1-20)	0-40	22.44	5.30	10-34	22.67	5.27	10-34
LD							
HCR-20 Total	0-40	27.62	4.13	20-33	26.33	4.34	19-33
H scale (H1-10)	0-20	16.38	2.81	10-20	16.00	3.13	9-20
C scale	0-10	6.31	1.60	3-9	6.19	1.63	3-9
R scale	0-10	5.33	1.87	3-9	4.58	2.52	0-9
SCJ: Risk total	0-90	36.69	9.65	26-61	35.14	8.95	20-61
H scale (H11-20)	0-40	10.85	3.39	6-17	9.95	3.20	5-17
S scale	0-10	1.31	2.87	0-10	1.71	2.85	0-10
V scale	0-10	6.23	2.87	1-10	5.62	2.82	0-10
E scale	0-10	1.92	2.63	0-8	1.86	2.52	0-8
H scale (H1-20)	0-40	27.23	5.39	16-34	25.95	5.42	14-34
WS							
HCR-20 Total	0-40	24.62	4.02	20-34	23.36	4.41	20-34
H scale (H1-10)	0-20	15.14	2.61	9-19	15.44	2.52	9-19
C scale	0-10	6.10	1.61	2-9	6.40	1.71	2-10
R scale	0-10	4.44	1.83	0-8	4.89	2.22	0-10
SCJ: Risk total	0-90	37.57	7.29	25-54	38.28	7.38	25-54
H scale (H11-20)	0-40	11.90	3.13	7-20	11.92	3.07	7-20
S scale	0-10	4.33	3.47	0-10	4.68	3.38	0-10
V scale	0-10	3.86	2.92	0-9	3.80	2.87	0-9
E scale	0-10	2.33	2.49	0-10	2.44	2.47	0-10
H scale (H1-20)	0-40	27.05	5.03	17-37	27.36	4.76	17-37

5.8.3.1 Mean Values of HCR-20 Subscales

HCR-20 total mean scores were comparable between Directorates, ranging between 27.62 (LD T1) and 22.67 (PD T2) from a possible total score of 40. The HCR-20 mean score for the total population ranged between 23.99 and 23.17 for the two time periods. Minimum scores and ranged between 13 and 36 (T1 and T2 MH). Historical subscale totals mean scores across the hospital ranged between a minimum of 14.09 (T1 MH) and 17.18 (T1 DSPD). The lowest minimum score was 7 (T1 MH) and the maximum score was 20 (T1 and T2 LD and DSPD). All other Directorates demonstrated maximum scores of 19. This perhaps is a reflection of the nature and severity of the offences for which the individuals are detained within the high-secure setting. The mean Clinical subscale totals for the hospital ranged between 5.32 (T1) and 5.21 (T2) from a possible total of 10. The highest mean score was observed during the second time period under investigation, within the Directorate of Women's Service (6.40) and the lowest was within the Personality Disorder Directorate (3.61). The range of scores ascribed to the population within each service ranged between a minimum of 0 (PD T1 and T2; MH, T1 and T2) and a maximum of 10 (MH T1 and T2 and WS T2). Mean Risk subscale totals ranged between 3.59 and 3.56 for the two time periods investigated, and the lowest mean score was evident within DSPD (T1 3.40) and the highest within LD (T1 5.33). Each Directorate assessed some individuals as warranting the minimum score of 0, indicative of the absence of any risk factors. A range of maximum scores was apparent between Directorates; a maximum of 7 was documented within DSPD (T1 and T2), 9 within PD (T2), 9 within MH (T2), 9 within LD (T1 and T2) and 10 within WS.

5.8.3.2 Mean Values of SCJ: Risk Subscales

Total mean scores for the additional items of the SCJ: Risk showed greater variations between minimum and maximum scores obtained. Mean SCJ: Risk total subscales ranged between a minimum of 26.94 (T1 MH) and a maximum of 37.57 (T1 WS) from a possible 90. The minimum score ascribed was 11 (T1 and T2 MH) and the maximum was 61 (T2 LD). Hospital mean SCJ: Risk total scores ranged between 26.94 and 30.94 for each of the two periods. The additional ten Historical items of the SCJ: Risk (H11-20) yielded lower mean scores than the original ten items of the HCR-20, with hospital totals ranging between 9.84 and 9.81 (compared to 15.28 and 15.45 for H1-10). The minimum score of 2 (MH, T2), and maximum scores of 14 (T1 DSPD); 17 (T1 and T2 PD); 16 (T1 and T2 MH); 17 (T1 and T2 LD); and 20 (WS T2) also showed greater variance of scores when compared to the original Historical items of the HCR-20. When the items of H1-10 and H11-20 were considered together, mean subscale Historical totals ranged between 25.12 and 25.26 throughout the hospital (from a possible total of 40). Total mean scores for this subscale yielded high maximum values within each Directorate: 35 (T2 DSPD), 35 (PD T1 and T2); 34 (MH T1 and T2); 34 (LD T1 and T2) and 37 (WS T1 and T2). Mean subscale total scores related to the five Suicide/Self-harm individual risk factors ranged between 1.37 and 1.30 within the twelve months under study. This subscale showed the greatest variation on the judgement of the presence or absence of risk factors between Directorates. The Directorate of Mental Health demonstrated the lowest mean score of 0.54 (T2, 0.69 at T1) and Women's Service documented the highest mean scores in the range of 4.33 (T1) and 4.68 (T2) from a possible maximum of 10. Total mean scores for Vulnerability subscale items within the hospital ranged between 3.24 (T1) and 2.89 (T2), with the lowest prevalence of risk

being documented within PD (T2 1.88) and the highest within LD (T1 6.23). The most significant absence of behaviour was documented for the additional SCJ: Risk subscale relating to Escape. Mean total subscale scores for the hospital ranged between 0.93 at T1, and 0.97 at T2. The lowest mean score was evident within PD (T1 0.37) and maximum scores within WS at T2 (2.44). Maximum scores of 3 and 4 were obtained at T1 PD, and T1 and T2 DSPD respectively (from a possible score of 10), and other Directorates displayed maximum scores of 8 (MH T2 and LD at T1 T2), and 10 (WS T1 and T2).

5.8.4 The Accuracy of SCJ: Risk in 'Predicting' Intra-Institutional Behaviour. Part One. The Predictive Utility of SCJ: Risk *Subscales*

ROC analyses were conducted to investigate the predictive accuracy of HCR-20 total, SCJ: Risk total and individual subscale scores with respect to inpatient violence. Table 5.3 compares the three categories of violence (Any, Level One and Level Two) for the total sample under investigation.

5.8.4.1 Violence

Any Violence

Of the original items of the HCR-20, the Total Score had the most significant predictive accuracy in terms of 'Any Violence', yielding AUCs that were significantly greater than chance (.743, $p<0.001$ at T1 and .660, $p<0.001$ at T2). All other subscale totals were predictive of any violence, with the exception of the Risk scale at T2. Subscale totals were significant for Historical (.693, $p<0.001$ at T1 and .628, $p<0.01$ at T2); Clinical (.649, $p<0.01$ at T1, and .633, $p<0.01$ at T2) and Risk factors (.628, $p<0.01$ at T1).

The additional items of the SCJ: Risk also had predictive value when 'Any Violence' was considered as an outcome measure during the first period of study. Table 5.3 shows that during this period, patients that displayed violence had significantly higher scores on all subscale totals apart from Suicide (nor was this scale a significant predictor at T2). Historical 11-20 subscales yielded AUCs of .593 ($p<0.05$) and when the original ten Historical factors of the HCR-20 were considered, the predictive accuracy rose to .662 ($p<0.001$) at T1. Neither Historical subscale was predictive at T2. The Vulnerability subscale was predictive of 'Any Violence' (.654, $p<0.001$) during T1 (but not T2), as were subscales related to

Escape (.658, $p<0.001$ at T1 and .598, $p<0.05$ at T2). SCJ: Risk Totals were the most robust predictor of 'Any Violence' with AUCs of .766 at T1 ($p<0.001$) and .672 at T2 ($p<0.001$). Differences between the predictive validity of subscales comprising the SCJ: Risk were therefore observed, with AUCs yielding larger statistical effect sizes during the first period of investigation. In addition, during the pre-implementation phase, a greater number of subscales indicative of any violence were apparent.

Differences between the predictive accuracy of subscales between Directorates were observed. H1-10 Total (.703, $p=0.05$); HCR-20 Total (.734, $p=0.05$) and SCJ: Risk (including H1-10 Totals, .689, $p=0.05$) were robust predictors of 'Any Violence' within the Directorate of PD at T1. The same three subscales were predictive of the same behaviour within the Directorate of Mental Health at T1: H1-10 Total (.711, $p=0.01$); HCR-20 Total (.703, $p=0.01$) and SCJ: Risk (including H1-10 Totals, .685, $p=0.05$). In addition Clinical and Vulnerability subscales yielded AUCs that were statistically significant (.664, $p=0.05$ and .668, $p=0.05$ respectively). The Clinical subscale was also observed to be predictive at T2 within the Directorate of MH (.697, $p=0.001$).

Level One Violence

The ROC analysis for Level One Violence yielded AUC's that were significantly greater than chance for the HCR-20 Total scale (.685, $p < 0.001$) and Historical (H1-10) scores (.677, $p<0.01$). Clinical and Risk factors yielded predictive validity no better than chance during this period. During the second time period investigated, Clinical, Risk and HCR-20 Total subscales yielded values indicative of

predictive accuracy (.657, $p<0.01$; .634, $p<0.05$; .687, $p<0.001$ respectively). Differences between the predictive utility of subscales during the two periods under study were therefore observed.

Subscales related to the additional Historical, Suicide or Escape items were not predictive of Level One Violence during the twelve-month investigation. However, Vulnerability (.659, $p<0.01$ at T1 and .621, $p<0.05$ at T2) and SCJ: Risk Totals (excluding H1-10; .637, $p<.0.5$ at T1 and .632, $p<0.05$ at T2, and including H1-10; .686, $p<0.001$ at T1 and .649, $p<0.01$ at T2) were robust predictors.

Subscale scores were differentially predictive between Directorates. Within DSPD Level One Violence was most strongly associated with subscale scores related to H1-10 (.920, $p=0.05$) at T1. During the same time period, subscales related to Vulnerability (.855, $p=0.01$) and HCR-20 Total scores (.742, $p=0.05$) were significant within PD, and within MH, H1-10 subscales were also predictive (.753, $p=0.05$). Clinical subscales were predictive of Level One Violence during the second six-month period under investigation within the Directorates of PD (.739, $p=0.05$) and MH (.736, $p=0.05$). HCR-20 Total scores were also found to be robust predictors within PD at T2 (.732, $p=.0.05$).

Level Two Violence

All subscale totals were robust predictors of Level Two Violence, with the exception of the Risk subscale at T2, and the Suicide subscale at both time periods. Analyses produces AUCs significantly better than chance ranging from .778

(p<0.001 at T1) for SCJ: Risk Total subscale scores (including H1-10) and the additional ten items of the SCJ: Risk's Historical subscale total .608 (p<0.05 at T2).

The most robust predictors of Level Two Violence were found within MH, where the following subscales yielded significant AUC values: H1-10 Total (.685, p=0.05 at T1); Vulnerability (.729, p=729, p=0.01 at T1 and .730, p=0.05 at T2); HCR-20 Total (.670, p=0.05 at T1), and SCJ: Risk Total (inclusive of H1-10, .714, p=0.01 at T1 and .609, p=0.05 at T2). Statistically significant subscale items were also observed within PD during T1 including: H1-20 (.699, p=0.05); Clinical (.714, p=0.05); HCR-20 Total (.763, p=0.05); SCJ: Risk Total (including H1-10, .738, p=0.05).

Table 5.3. Area Under Curve (AUCs), Standard Error (SE) and Confidence Intervals (CI) from Receiver Operating Characteristic Analysis for Intra-Institutional Behaviour Related to Violence

Scale Measure	Any Violence					
	AUC		SE		95% CI	
	T1	T2	T1	T2	T1	T2
H scale (H1-10)	.693***	.628**	.043	.046	.608-.778	.537-.718
C scale	.649**	.633**	.045	.046	.560-.738	.543-.724
R scale	.628**	.564	.046	.048	.537-.718	.470-.657
HCR-20 Total	.743***	.660***	.041	.045	.663-.822	.572-.749
H scale (H11-20)	.593*	.582	.047	.048	.501-.686	.488-.675
H scale (H1-20)	.662***	.620	.045	.046	.574-.749	.529-.710
S scale	.558	.575	.049	.047	.463-.653	.482-.667
V scale	.654***	.591	.045	.047	.565-.743	.499-.683
E scale	.658***	.598*	.046	.047	.568-.747	.507-.690
SCJ: Risk Total (excluding H1-10)	.720***	.656***	.042	.045	.637-.803	.567-.744
SCJ: Risk Total (including H1-10)	.766***	.672***	.039	.045	.689-.842	.585-.760

Scale Measure	Level 1 Violence					
	AUC		SE		95% CI	
	T1	T2	T1	T2	T1	T2
H scale (H1-10)	.677**	.579	.055	.056	.570-.784	.487-.707
C scale	.600	.657**	.083	.049	.493-.708	.561-.754
R scale	.592	.634*	.061	.054	.473-.711	.527-.741
HCR-20 Total	.685***	.687***	.050	.050	.588-.783	.534-.730
H scale (H11-20)	.523	.527	.060	.053	.407-.640	.424-.631
H scale (H1-20)	.597	.568	.057	.055	.485-.709	.459-.676
S scale	.524	.579	.062	.056	.403-.645	.469-.689
V scale	.659**	.621*	.051	.054	.560-.758	.516-.727
E scale	.585	.547	.059	.056	.470-.701	.438-.657
SCJ: Risk Total (excluding H1-10)	.637*	.632*	.056	.050	.528-.746	.534-.730
SCJ: Risk Total (including H1-10)	.686***	.649**	.049	.050	.590-.782	.551-.747

Scale Measure	Level 2 Violence					
	AUC		SE		95% CI	
	T1	T2	T1	T2	T1	T2
H scale (H1-10)	.663***	.628**	.045	.046	.575-.751	.537-.718
C scale	.665***	.609*	.045	.047	.577-.753	.517-.700
R scale	.650**	.564	.046	.048	.560-.739	.470-.657
HCR-20 Total	.743***	.658***	.041	.045	.663-.822	.569-.747
H scale (H11-20)	.616*	.608*	.047	.047	.524-.708	.517-.699
H scale (H1-20)	.663***	.643**	.045	.046	.574-.751	.554-.732
S scale	.557	.590	.049	.047	.461-.652	.497-.683
V scale	.682***	.610*	.045	.047	.594-.769	.519-.701
E scale	.659***	.635**	.046	.046	.569-.749	.545-.726
SCJ: Risk Total (excluding H1-10)	.748***	.709***	.041	.043	.668-.828	.625-.792
SCJ: Risk Total (including H1-10)	.778***	.718***	.039	.042	.703-.854	.636-.800

5.8.4.2 Suicide/Self-Harming Behaviour

The additional subscales of the SCJ: Risk yielded significantly more robust AUC values than the original items of the HCR-20 when predicting intra-institutional behaviour relevant to self-harm and suicide. Significant predictive accuracy was observed within all subscales, with AUC in the range of .839 (p <0.001 T2 for SCJ: Risk Totals) and .645 (p <0.05 for the H1-20 subscales). The predictive merit of the Suicide/Self-harm subscale was established (.759, p <0.001 at T1 and .775, p <0.001). The most robust predictor was the SCJ: Risk Total *excluding* the original H1-10 items of the HCR-20 (.808, p <0.001 at T1 and .839, p <0.001 at T2). The Clinical subscale of the HCR-20 was not predictive of self-harming/suicidal behaviour at either time period, nor was the H1-10 subscale during T1. Table 5.4 compares behaviour related to Suicide / Self-harm for the total sample under investigation.

The predictive utility of individual subscales varied between Directorates. Within the Directorate of MH perfect predictive accuracy of the Suicide /Self-harm scale was demonstrated at T1 (1.00, p=0.01), and excellent predictive accuracy of the same subscale was observed within the same Directorate at T2 (.938, p=0.01), and within WS at T1 (.808, p=0.05). The Clinical Risk subscale was predictive within MH (.836, p=0.05 at T1 and .886, p=0.05 at T2); PD (.765, p=0.05 at T2). Risk subscales were predictive of Suicide/Self-harming behaviour within PD (.811, p=0.05), and HCR-20 total scores were robust within PD (.827, p=0.01 at T2) and MH (.915, p=0.05 at T2). Vulnerability of risk from others was a predictive subscale for the subsequent manifestation of self-harming behaviour within the Directorate of

PD at T2 (.924, p=0.001). SCJ: Risk total scores (inclusive of H1-10) were also predictive within PD (.869, p=0.05 at T2) and MH (.876, p=0.05 at T1).

Table 5.4. Area Under Curve (AUCs), Standard Error (SE) and Confidence Intervals (CI) from Receiver Operating Characteristic Analysis for-Institutional Behaviour Related to Suicide/Self-harming Behaviour

Scale Measure	Suicide / Self-Harming Behaviour					
	AUC		SE		95% CI	
	T1	T2	T1	T2	T1	T2
H scale (H1-10)	.569	**.626***	.055	.056	.462-.676	.516-.735
C scale	.561	.643	.063	.059	.439-.684	.528-.759
R scale	**.640***	**.704*****	.057	.048	.528-.752	.609-.799
HCR-20 Total	**.635***	**.733*****	.062	.051	.514-.756	.633-.834
H scale (H11-20)	**.658****	**.690****	.051	.048	.557-.759	.595-.784
H scale (H1-20)	**.645***	**.696****	.053	.052	.540-.749	.593-.799
S scale	**.759*****	**.775*****	.059	.057	.644-.874	.663-.887
V scale	**.656****	**.658***	.058	.060	.542-.771	.541-.775
E scale	**.673****	**.687****	.061	.063	.554-.792	.563-.811
SCJ: Risk Total (excluding H1-10)	**.808*****	**.839*****	.048	.041	.715-.901	.760-.919
SCJ: Risk Total (including H1-10)	**.796*****	**.839*****	.050	.042	.697-.894	.755-.922

5.8.4.3 Escape / Abscond

The predictive validity of any subscale item related to intra-institutional behaviour relevant to escape or absconding was not established, due to the problem of low baserates of this behaviour (above). There were no variations between Directorates as to the predictive validity of individual subscales for either time period investigated.

Table 5.5. Area Under Curve (AUCs), Standard Error (SE) and Confidence Intervals (CI) from Receiver Operating Characteristic Analysis for Intra-Institutional Behaviour Related to Escape / Abscond

Scale Measure	Escape / Abscond					
	AUC		SE		95% CI	
	T1	T2[1]	T1	T2[2]	T1	T2[3]
H scale (H1-10)	.168	-	.108	-	.016-.353	-
C scale	.648	-	.474	-	.336-.959	-
R scale	.575	-	.113	-	.354-.796	-
HCR-20 Total	.354	-	.044	-	.268-.440	-
H scale (H11-20)	.292	-	.039	-	.215-.368	-
H scale (H1-20)	.167	-	.070	-	.030-.304	-
S scale	.319	-	.134	-	.056-.583	-
V scale	.470	-	.240	-	.001-.940	-
E scale	.866	-	.099	-	.672-1.06	-
SCJ: Risk Total (excluding H1-10)	.540	-	.275	-	.001-1.07	-
SCJ: Risk Total (including H1-10)	.413	-	.194	-	.033-.794	-

1,2,3 There were no valid observations for positive actual state groups. Due to the absence of intra-institutional behaviour, the estimation of predictive accuracy could not be modelled within SPSS version 16.

5.8.4.4 Vulnerability

Vulnerability of risk from others was not predicted by the Vulnerability subscale, but was predicted by the Escape subscale at T2 (.699, p=0.05), and SCJ: Risk total subscales (excluding H1-10: .737, p=0.01 at T1 and .730, p=0.01 at T2 and including H1-10: .754, p=0.01 at T1 and .749, p=0.01 at T2). The Vulnerability subscale was significantly predictive within the Directorates of PD at T2 (.857, p=0.05), however no further observations were made for either time period investigated.

Table 5.6. Area Under Curve (AUCs), Standard Error (SE) and Confidence Intervals (CI) from Receiver Operating Characteristic Analysis for Intra-Institutional Behaviour Related to Vulnerability

Scale Measure	Vulnerability					
	AUC		SE		95% CI	
	T1	T2	T1	T2	T1	T2
H scale (H1-10)	.624	.648	.099	.068	.430-.817	.514-.782
C scale	.568	.650	.066	.057	.439-.697	.538-.762
R scale	.625	.566	.088	.062	.168-.453	.445-.687
HCR-20 Total	.656	.645	.078	.075	.504-.808	.501-.765
H scale (H11-20)	.646	.622	.109	.073	.433-.859	.478-.766
H scale (H1-20)	.661	.669	.110	.072	.445-.876	.528-.811
S scale	.603	.582	.104	.084	.400-.807	.417-.747
V scale	.651	.644	.067	.067	.519-.782	.513-.775
E scale	.618	**.699***	.094	.077	.434-.802	.513-.775
SCJ: Risk Total (excluding H1-10)	**.737****	**.730****	.098	.062	.545-930	.609-.851
SCJ: Risk Total (including H1-10)	**.754****	**.749****	.090	.066	.577-.930	.619-.878

5.8.4.5 Subversion of Security

The Clinical subscale (.638, p=0.05 at T1, and .667, p=0.01 at T2) and HCR-20 Total (.633, p=0.05 at T1, and .691, p=0.05 at T2) were significant predictors of subversive behaviour. The Escape items yielded the most robust AUC values for T1 in particular (.789, p=0.001 and .719, p=0.01 at T2). SCJ: Risk Total subscales excluding and including H1-10 items were also predictive of subversion (7.22, p=0.001 at T1 and .655, p=0.05 at T2: .710, p=0.01 at T1 and .684, p=0.05 respectively). Subscales related to H1-10, Risk, H11-20, H1-20, Suicide or Vulnerability were not statistically significantly.

Table 5.7. Area Under Curve (AUCs), Standard Error (SE) and Confidence Intervals (CI) from Receiver Operating Characteristic Analysis for Intra-Institutional Behaviour Related to Subversion of Security

Scale Measure	Subvert Security and Safety					
	AUC		SE		95% CI	
	T1	T2	T1	T2	T1	T2
H scale (H1-10)	.518	.624	.067	.069	.387-.649	.488-.760
C scale	.638*	.667**	.047	.073	.546-.730	.525-.810
R scale	.573	.550	.053	.084	.470-.676	.286-.715
HCR-20 Total	.633*	.691*	.054	.063	.527-.738	.568-.814
H scale (H11-20)	.602	.558	.062	.073	.481-.724	.415-.701
H scale (H1-20)	.573	.618	.065	.074	.446-.700	.472-.764
S scale	.618	.568	.071	.082	.480-.757	.408-.728
V scale	.492	.541	.058	.074	.378-.606	.396-.687
E scale	.789***	.719**	.054	.81	.527-.738	.560-.878
SCJ: Risk Total (excluding H1-10)	.722***	.655*	.054	.080	.616-.828	.499-.811
SCJ: Risk Total (including H1-10)	.710**	.684*	.054	.072	.605-.816	.543-.825

5.8.4.6 Summary of the Predictive Accuracy of Subscale Items

The results are indicative of the variation in the predictive accuracy of the subscales included within the HCR-20 and SCJ: Risk, between Directorates and for the two time periods investigated. The predictive ability of subscales within the SCJ: Risk measure was particularly robust when considering intra-institutional behaviour relevant to Violence (Any and Level Two in particular) and Self-harm/Suicide. Behaviours for which low baserates of intra-institutional were observed yielded predictive validity that was no greater than chance, particularly when considering Escape/Abscond risk factors. The original items of the HCR-20 were not predictive of behaviour relevant to Vulnerability (nor was the expected subscale of Vulnerability within the SCJ: Risk), however, SCJ: Risk Totals did yield statistically significant AUCs. Individual subscales of the HCR-20 (Clinical and Total), Escape and SCJ: Risk Totals of the SCJ: Risk were predictive of behaviour related to Subversion. The most robust predictor each type of intra-institutional behaviour was the SCJ: Risk Total (including H1-10), indicative of the value of the instrument to the purpose for which it was designed.

5.8.5 The Predictive Accuracy of SCJ: Risk in 'Predicting' Intra-Institutional Behaviour. Part Two. The Predictive Utility of SCJ: Risk *Items within Subscales* (Individual Risk Factors)

The predictive utility of individual items within subscales was investigated with varying levels of statistical significance between the behavioural outcome criterion variables of interest. Table 5.8 displays AUC values for individual risk factors comprising the HCR-20 and SCJ: Risk.

5.8.5.1 Violence

Any Violence

Analyses found five of the original ten Historical risk factors of the HCR-20 to be predictive of 'Any Violence'. Relationship Instability (H3), Psychopathy (H7), Early Maladjustment (H8), and Personality Disorder (H9) yielded statistically significant AUCs in the range of .641 (p=0.01) and .693 (p=0.001) for the whole population during the twelve-month study. Two of the additional Historical items comprising the SCJ: Risk were predictive. Arson (H15) was predictive at T1 (.611, p=0.05) and Concerted Discipline (H18) at both time periods (.637, p=0.01 at T1 and .672, p=0.001 at T2). Two of the Clinical Subscales: C2 Negative Attitudes (.740, p=0.01 at T1 and .690, p=0.001), and C4 Impulsivity were predictive of the manifestation of future intra-institutional violence. (R4) Non-compliance with remediation attempts (.625, p=0.05 at T1) and (R5) Stress (.640, p=0.05 at T1 and .608, p=0.05 at T2) were found to be predictive. Of the additional subscales, (S1) Frequency of Self-harming attempts (.591, p=0.05 at T1); (V3) Psychological Problems (.641, p=0.05), (V4) Social Problems (.608, p=0.05) and (E5) Subversive Behaviour (.680, p=0.001 at T1 and .624, p=0.01 at T2) were predictive of 'Any Violence'. Differences between the predictive utility of individual risk factors in

relation to 'any violence' were therefore observed, with a greater number of factors yielding statistical significance during the first period of investigation, than the second.

Level One Violence

The presence of a Personality Disorder (H9) was the only significant Historical predictor from the original HCR-20 (.659, p=0.01 at T1 and .630, p=0.01 at T2). The additional Historical factors of (H14) Self-harm was predictive at T2 (.659, p=0.01) as was (H15) Arson (.608, p=0.05) and (H18) Concerted Indiscipline (.617, p=0.05). The same two Clinical subscales that were predictive of 'Any Violence' were predictive of Level One Violence, namely C2 (.689, p=0.01 at T1 and .680 at T2, p=0.001) and C4 (.721, p=0.001 at T1 and .788, p=0.001 at T2). In addition to R4 (.641, p=0.05 at T1 and .644, p=0.01 at T2) and R5 (.663, p= 0.01, p= 0.01 at T1 (also predictive of Any Violence, and Level Two Violence), R3 (Lack of Personal Support) was predictive of Level One Violence at T1 (.656, p=0.01). Frequency of Self-harm (S1) and Planning (S3) were also significant predictors at T2 (.629, p=0.05 at T1 and .616, p=0.05 at T2). The same Vulnerability factors that were predictive of 'Any Violence' were also predictive of Level One Violence: V2 at T1 (.642, p=0.05), V3 at T1 and T2 (.646, p=0.05 and .628, p=0.05), and V4 at T2 (.640, p=0.05). No differences in the predictive utility of individual risk factors with relevance to Level One Violence were prevalent during the two time periods under investigation.

Level Two Violence

The same individual risk factors predictive of Level One and Any Violence were found to be predictive of Level Two Violence, and no differences between the two time periods investigated were observed. The original static HCR-20 factors of: H3 (.663, p=0.01 at T1 and .593, p=0.05 at T2); H7 (.645, p=0.01 at T1 and .636, p=0.01 at T2); H8 (.639, p=0.01 at T1 and .622, p=0.01 at T2) and H9 (.670, p=0.01 at T1 and .661, p=0.001 at T2) had predictive merit. The original dynamic factors relevant to C2 (.733 at T1 and .671 at T2 both significant at p=0.001), C4 (.800 at T1 and .737 at T2 both p=0.01), R4 (.640, p=0.01 at T1 and .594, p=0.05), and R5 (.615, p=0.05) also showed predictive value of Level Two Violence. Additional individual risk factors related to H14 (.593, p=0.05 at T2), H15 (.611, p=0.05), H18 (.657, p=0.01 at T1 and .680, p=0.01), S1 (.593, p=0.05 at T1), V2 (.636, p=0.05), V3 (.661, p=0.01 at T1), V4 (.631, p=0.01) and E5 (.673, p=0.01 at T1 and .649, p=0.01 at T2) were also predictive of violence not resulting in physical injury.

Table 5.8. Predictive Validity of Individual Risk Factors of the SCJ: Risk for Intra-institutional Behaviour related to Violence (Any, Level One and Level Two) (*n*=153 at T1 and *n*=217 at T2)

Individual Risk Factors Comprising Subscales	Any Violence T1		Any Violence T2		Level One Violence T1		Level One Violence T2		Level Two Violence T1		Level Two Violence T2	
	AUC	SE	AUC	SE	AUC	SE	AUC	SE	AUC	SE	AUC	SE
H1 Previous violence	.491	.055	.501	.047	.482	.064	.508	.055	.490	.055	.500	.046
H2 Young age at first violent incident	.568	.054	.582	.046	.520	.062	.543	.054	.556	.054	.584	.046
H3 Relationship instability	**.642***	.052	.576	.046	.586	.058	.548	.053	**.663****	.051	**.593***	.046
H4 Employment problems	**.625***	.052	.570	.046	.553	.059	.523	.054	.620*	.052	.562	.046
H5 Substance misuse problems	.505	.054	.543	.046	.514	.062	.498	.055	.468	.055	.528	.046
H6 Major mental illness	.390	.054	.362	.044	.427	.063	.457	.054	.391	.054	.348	.044
H7 Psychopathy (PCL-R/PCL)	**.648****	.052	**.641****	.044	.609	.066	.594	.057	**.645****	.053	**.636****	.044
H8 Early maladjustment	**.649****	.051	.604	.046	.619	.056	.545	.054	**.639****	.052	**.622****	.045
H9 Personality disorder	**.693*****	.050	**.652*****	.044	**.695****	.055	**.630***	.051	**.670****	.051	**.661*****	.044
H10 Prior supervision failure	.564	.054	.527	.047	.588	.059	.516	.055	.550	.054	.540	.046
H11 Child protection	.579	.054	.494	.047	.565	.060	.433	.051	.602	.053	.525	.046
H12 Sex Offending	.593	.053	.506	.047	.570	.060	.438	.053	.605	.053	.526	.046
H13 Suicide	.452	.054	.515	.046	.467	.063	.545	.055	.469	.055	.518	.046
H14 Self-harm	.578	.054	.610*	.046	.531	.063	**.659****	.049	.577	.054	**.593***	.046
H15 Arson	**.611***	.053	.522	.046	**.608***	.060	.585	.054	**.611***	.053	.528	.046
H16 Hostage taking	.436	.054	.520	.047	.445	.059	.449	.053	.438	.054	.528	.046
H17 Weapons	.451	.054	.482	.046	.504	.063	.505	.055	.446	.055	.475	.046
H18 Concerted indiscipline	**.637*****	.053	**.672*****	.044	.536	.064	**.617***	.055	**.657****	.053	**.680*****	.044
H19 High public/political interest	.417	.053	.449	.046	.406	.058	.390	.050	.431	.054	.448	.046
H20 Escape / abscond history	.580	.054	.541	.046	.563	.062	.557	.055	.591	.054	.545	.046
C1 Lack of insight	.463	.054	.506	.047	.473	.061	.498	.056	.489	.054	.514	.046
C2 Negative attitudes	**.740*****	.047	**.690*****	.043	**.689****	.054	**.680*****	.047	**.733*****	.048	**.671*****	.043
C3 Active symptoms of mental illness	.330**	.052	.357**	.045	.407	.064	.385	.054	.345	.053	.340***	.044
C4 Impulsivity	**.785*****	.044	**.744*****	.040	**.721*****	.055	**.788*****	.040	**.800*****	.043	**.737*****	.040
C5 Unresponsive to treatment	.528	.056	.517	.046	.488	.066	.500	.055	.537	.057	.512	.046

Individual Risk Factors Comprising Subscales	Any Violence T1		Any Violence T2		Level One Violence T1		Level One Violence T2		Level Two Violence T1		Level Two Violence T2	
	AUC	SE	AUC	SE	AUC	SE	AUC	SE	AUC	SE	AUC	SE
R1 Plans lack feasibility	.514	.054	.502	.047	.558	.064	.538	.057	.507	.055	.508	.046
R2 Exposure to destabilsers	.558	.054	.534	.046	.524	.066	.599	.057	.586	.054	.534	.046
R3 Lack of personal support	.602	.053	.538	.047	.559	.064	**.656****	.052	**.629***	.053	.539	.046
R4 Non-compliance remediation	**.625***	.053	.579	.046	**.641***	.061	**.644****	.052	**.640****	.053	**.594***	.045
R5 Stress	**.640***	.052	**.608***	.045	.575	.061	**.663****	.050	**.655****	.052	**.615***	.046
S1 Frequency	.555	.054	**.591***	.045	.591	.066	**.629***	.058	.547	.055	**.593***	.046
S2 Severity	.443	.054	.557	.046	.484	.062	.557	.058	.435	.054	.552	.046
S3 Hopelessness	.587	.054	.576	.046	.557	.066	**.616***	.059	.576	.055	.572	.046
S4 Planning	.587	.054	.550	.046	.605	.067	.582	.058	.577	.055	.546	.046
S5 Suicidal ideation	.557	.054	.541	.046	.560	.066	.554	.058	.560	.055	.533	.046
V1 Mental State	.518	.055	.474	.047	.473	.063	.493	.055	.561	.055	.469	.046
V2 Physical/physiological problems	.601	.054	.552	.046	**.642***	.065	.547	.055	**.636***	.054	.568	.046
V3 Psychological problems	**.641***	.052	.579	.046	**.646***	.059	**.628***	.052	**.661****	.052	.578	.046
V4 Social problems	.565	.054	**.608***	.045	.606	.063	**.640***	.054	.588	.054	**.631****	.045
V5 Exploitation	.583	.054	.514	.047	.569	.065	.535	.057	.591	.054	.518	.046
E1 Planning	.530	.055	.501	.047	.543	.065	.481	.054	.532	.055	.506	.046
E2 Incentive	.528	.055	.545	.046	.516	.064	.490	.055	.535	.055	.556	.046
E3 Interest in security	.553	.054	.540	.046	.511	.064	.477	.055	.559	.055	.548	.046
E4 Mental disorder	.496	.054	.475	.047	.507	.063	.455	.053	.499	.055	.482	.046
E5 Subversive behaviour	**.680*****	.052	**.624****	.045	.613	.065	.546	.056	**.673****	.053	**.649****	.044

5.8.5.2 Suicide/Self-Harming Behaviour

The predictive validity of individual risk factors comprising the SCJ: Risk for behaviour relevant to suicide/self-harm was less obvious when considering static risk factors. The presence of Personality Disorder (H9), Negative Attitudes (C2), Impulsivity (C4), Non-compliance with remediation attempts (R4), Stress (R5) were factors of the original risk assessment system that yielded significant AUCs. Additional static factors of the SCJ: Risk that were predictive were (H13) Suicide (.625, p=0.05 at T2), (H14) Self-harm (.680, p=0.01 at T1 and .699, p=0.01 at T2), and (H20) Escape/Abscond History (.693, p=0.001 at T2). Dynamic factors of the HCR-20 that were predictive of any evidence of self-harming behaviour included (C2) Negative Attitudes (.628, p=0.05 at T2), (C4) Impulsivity (.682, p=0.01 at T1 and .790, p=0.001 at T2), (R4) Non-compliance with remediation attempts (.686, p=0.01 at T2) and (R5) Stress (.722, p=0.001 at T2). The additional individual risk factors within the subscale of Suicide were all predictive of the manifestation of subsequent behaviour, with particular strength during T2 yielding the following AUCs: (S1) Frequency (.683, p=0.01 at T1 and .714, p=0.001 at T2), (S2) Severity (.636, p=0.05 at T2), (S3) Hopelessness (.673, p=0.05 at T1 and .701, p=0.001 at T2), (S4) Planning (.674, p=0.05 at T1 and .657, p=0.05 at T2), and (S5) Suicidal Ideation (.633, p=0.05 at T2). Other dynamic factors that were predictive included (V3) Psychological Problems (.649, p=0.05 at T1 and .707, p=0.001 at T2), (V5) Exploitation (.631, p=0.05 at T2) and (E5) Subversive Behaviour (.658, p=0.05 at T1). Differences between the predictive validity of individual risk factors between the two time periods of investigation were therefore observed in relation to behaviours relevant to suicide/self-harm, with a greater degree of validity apparent within the six months following the formal date of implementation.

5.8.5.3 Escape/Abscond

No individual item within any subscale of the original HCR-20 or the additional items of the SCJ: Risk system was predictive of intra-institutional behaviour relevant to attempts to abscond or escape from the physical security of a high-secure special hospital. Differences between the two time periods under investigation were not observed.

5.8.5.4 Vulnerability

Two individual risk dynamic factors of the HCR-20 were predictive of behaviours related to patient vulnerability at T1, namely (C2) Negative Attitudes (.724, p=0.05) and (C4) Impulsivity (.762, p=0.01). Three static risk factors were predictive of subsequent vulnerability of risk from others. These were related to the (H15) Arson (.676, p=0.05 at T2); (H12) Sex Offending (0.724, p=0.05); and (H7) Psychopathy (.760, p=0.05 at T1; .687, p=0.05 at T2). Only one of the five individual risk factors within the Vulnerability subscale yielded AUCs of statistical significance, and related to (V3) Psychological Problems (.725, p=0.05 at T2). The presence of (E5) Subversive Behaviour was also a significant predictor of patient vulnerability during the first phase of investigation (.750, p=0.05). Differences between the two time periods investigated in relation to the predictive validity of individual risk factors in relation to vulnerability were therefore observed.

5.8.5.5 Subversion of Security

The Clinical subscale contained individual risk factors that were predictive of behaviour relevant to the subversion of security, namely; (C2) Negative Attitudes (.697, p=0.01 at T2) and (C4) Impulsivity (.761, p=0.05 at T1 and .710, p=0.01 at

T2). The Risk subscale contained one relevant factor evident at the second period of investigation, namely (R4) Non-compliance with Remediation Attempts (.675, p=0.05). Two individual factors within two subscales of the SCJ: Risk had predictive merit; (V2) Physical /Physiological Problems (.540, p=0.05) and (E5) Subversive Behaviour (.740, p=0.05 at T1 and .690, p=0.01 at T2).

Table 5.9. Predictive Validity of Individual Risk Factors of the SCJ: Risk for Intra-institutional Behaviour Related to Suicide/Self-Harm, Escape, Vulnerability and Subversion (*n*=153 at T1 and *n*=217 at T2)

Individual Risk Factors Comprising Subscales	Suicide/ Self-harm T1		Suicide/ Self-harm T2		Escape T1		Escape T2		Vulnerable T1		Vulnerable T2		Subversion T1		Subversion T2	
	AUC	SE	AUC	SE	AUC	SE	AUC	SE	AUC	SE	AUC	SE	AUC	SE	AUC	SE
H1 Previous violence	.505	.070	.508	.063	.504	.289	-	-	.505	.112	.507	.086	.505	.088	.479	.071
H2 Young age at first violent incident	.469	.071	.600	.056	.133	.064	-	-	.626	.088	.632	.068	.498	.087	.585	.062
H3 Relationship instability	.579	.064	.558	.059	.633	.216	-	-	.640	.085	.615	.070	.560	.081	.506	.069
H4 Employment problems	.462	.069	.508	.061	.699	.178	-	-	.582	.097	.593	.074	.642	.071	.527	.067
H5 Substance misuse problems	.447	.072	.503	.064	.217	.058	-	-	.659	.082	.490	.085	.547	.080	.553	.067
H6 Major mental illness	.367	.071	.385	.061	.044	.032	-	-	.305	.120	.339	.079	.274	.083	.371	.065
H7 Psychopathy (PCL-R/PCL)	.615	.075	.593	.068	.566	.135	-	-	**.760***	.106	**.687***	.075	.586	.089	.606	.073
H8 Early maladjustment	.582	.063	.604	.054	.611	.228	-	-	.617	.090	.615	.070	.518	.090	.589	.062
H9 Personality disorder	**.715****	.060	**.706*****	.049	.327	.093	-	-	.690	.081	.657	.067	.493	.087	.554	.066
H10 Prior supervision failure	.497	.069	.566	.060	.637	.213	-	-	.645	.085	.575	.075	.652	.067	.658	.053
H11 Child protection	.569	.065	.516	.062	.788	.128	-	-	.620	.096	.566	.072	.482	.074	.471	.063
H12 Sex Offending	.431	.070	.442	.062	.796	.123	-	-	**.724***	.069	.564	.077	.609	.076	.462	.066
H13 Suicide	.551	.065	**.625***	.054	.367	.066	-	-	.489	.098	.523	.079	.490	.086	.556	.066
H14 Self-harm	**.680****	.056	**.699****	.048	.358	.053	-	-	.636	.099	.500	.089	.563	.082	.515	.070
H15 Arson	.565	.069	.621	.060	.243	.146	-	-	.718	.090	**.676***	.074	.591	.085	.629	.064
H16 Hostage taking	.491	.069	.527	.063	.283	.168	-	-	.646	.103	.474	.081	.557	.083	.528	.067
H17 Weapons	.463	.072	.461	.065	.009	.010	-	-	.542	.105	.549	.080	.450	.094	.524	.067
H18 Concerted indiscipline	.629	.068	.621	.061	.730	.060	-	-	.666	.122	.668	.085	.578	.088	.632	.069
H19 High public/political interest	.433	.064	.375	.053	.814	.063	-	-	.509	.116	.536	.091	.482	.087	.502	.068
H20 Escape / abscond history	.567	.067	**.693****	.057	.283	.168	-	-	.666	.106	.516	.086	.554	.091	.586	.068

Individual Risk Factors Comprising Subscales	Suicide/ Self-harm T1		Suicide/ Self-harm T1		Escape T1		Escape T2		Vulnerable T1		Vulnerable T2		Subversion T1		Subversion T2	
	AUC	SE	AUC	SE	AUC	SE	AUC	SE	AUC	SE	AUC	SE	AUC	SE	AUC	SE
C1 Lack of insight	.421	.070	.480	.065	.336	.106	-	-	.454	.089	.531	.074	.513	.076	.550	.071
C2 Negative attitudes	.576	.070	**.628***	.059	.478	.085	-	-	**.724***	.073	.666	.072	.659	.072	**.697****	.050
C3 Active symptoms of mental illness	.377	.067	.357*	.056	.230	.138	-	-	.215	.056	.312	.060	.338	.079	.474	.070
C4 Impulsivity	**.682****	.065	**.790*****	.038	.814	.113	-	-	.642	.098	**.762****	.052	**.761***	.067	**.710****	.047
C5 Unresponsive to treatment	.472	.075	.549	.065	.544	.128	-	-	.635	.126	.526	.098	.435	.086	.610	.070
R1 Plans lack feasibility	.531	.072	.527	.065	.403	.236	-	-	.621	.118	.569	.090	.484	.087	.594	.074
R2 Exposure to destabilsers	.559	.072	.584	.066	.628	.089	-	-	.636	.110	.514	.083	.476	.084	.517	.074
R3 Lack of personal support	.586	.066	.603	.059	.248	.148	-	-	.704	.091	.534	.091	.436	.093	.562	.071
R4 Non-compliance remediation	.612	.071	**.686****	.060	.230	.138	-	-	.634	.114	.599	.076	.614	.068	**.675***	.067
R5 Stress	.592	.070	**.722*****	.052	.814	.113	-	-	.634	.098	.522	.072	.605	.078	.593	.067
S1 Frequency	**.683****	.073	**.714*****	.065	.403	.236	-	-	.642	.124	.499	.088	.533	.091	.600	.073
S2 Severity	.594	.073	**.636***	.067	.381	.223	-	-	.543	.122	.422	.080	.460	.085	.504	.069
S3 Hopelessness	**.673***	.074	**.701*****	.067	.451	.264	-	-	.687	.126	.535	.092	.539	.092	.614	.075
S4 Planning	**.674***	.075	**.657***	.068	.451	.264	-	-	.685	.125	.543	.092	.586	.095	.620	.075
S5 Suicidal ideation	.584	.075	**.633***	.069	.473	.276	-	-	.624	.125	.514	.089	.471	.084	.523	.071
V1 Mental State	.526	.072	.528	.064	.296	.176	-	-	.502	.110	.410	.078	.483	.082	.420	.067
V2 Physical/physiological problems	.611	.070	.563	.062	.363	.213	-	-	.562	.110	.668	.081	.449	.086	**.540***	.067
V3 Psychological problems	**.649***	.069	**.707*****	.056	.217	.131	-	-	.664	.094	**.725***	.055	.582	.089	.679	.064
V4 Social problems	**.678***	.068	**.731*****	.054	.288	.171	-	-	.577	.111	.567	.085	.481	.085	.618	.067
V5 Exploitation	.606	.071	**.631***	.065	.345	.203	-	-	.658	.116	.658	.089	.525	.092	.549	.072
E1 Planning	.530	.072	.560	.067	.478	.279	-	-	.551	.120	.558	.093	.523	.091	.525	.072
E2 Incentive	.513	.071	.521	.065	.438	.256	-	-	.517	.118	.523	.090	.521	.090	.633	.075
E3 Interest in security	.592	.075	.541	.066	.451	.264	-	-	.609	.126	.586	.094	.540	.092	.590	.075
E4 Mental disorder	.521	.072	.529	.065	.469	.274	-	-	.543	.119	.507	.088	.512	.090	.517	.071
E5 Subversive behaviour	**.658***	.072	.574	.066	.854	.055	-	-	**.750***	.100	.590	.084	**.740***	.082	**.690****	.069

5.8.5.6 Summary of the Predictive Accuracy of Individual Items within Subscales

Individual Items of the HCR-20 and the Prediction of Violent Behaviour

As reported in the analysis of the predictive accuracy of subscale items, the individual risk factors comprising the subscales of the HCR-20 and SCJ: Risk yielded AUCs with varying levels of statistical significance. The predictive ability of individual items comprising the original HCR-20 was observed, and replicated empirical support provided by previous studies.

Historical Items

Relationship Instability (H3) was a predictive factor at T1 for Violence (Any, Level One or Level Two). The inability to form and maintain long-term, stable intimate relationships, or presence of an unstable conflictual pattern of relationship was a predictive factor of aggression within a community sample of adults within the community with the presence of psychosis (Milton, Amin, Singh, Harrison, Jones, Croudace, Medley & Brewin (2001)).

Employment problems (H4) were predictive of Any Violence at T1, and problems related to seeking and maintaining employment were found in community samples within violent schizophrenic patients (Fresan, Apiquan, de la Fuente-Sandoval, Garcia-Anaya, Loyzaga & Nicolini (2004, cited in Guy & Wilson, 2007)) and in recidivist groups of mentally disordered offenders (Bonta, Law & Hanson, 1998).

The presence of psychopathic traits (H7) as defined by the PCL-R or PCL:SV (see Chapter Three) was predictive of Any Violence and Level Two Violence during the twelve month investigation. A wealth of literature exists in support of the construct of psychopathy as a predictor of violence risk. A recent publication conducted by the present investigator and colleagues investigated the predictive utility of the PCL-R in a sample of sixty individuals within the Learning Disability Directorate of the special hospital (Morrisey, Hogue, Mooney, Richardson, Johnston, Hollin, Lindsay and Taylor (2007). IR1 data was again used to ascertain intra-institutional behaviour over a twelve-month period. Within this sample, the predictive utility of the PCL-R 20-item total, PCL-R 13-item total was not demonstrated (nor were PCL-R Factor 1 and Factor 2 scores), and did not significantly predict any type of aggressive or violent behaviour. The same study investigated the predictive utility of two more clinically based measures, one of which was the HCR-20, which was found to be significantly predictive of both violence manifesting physical aggression directed toward another (Level One) and violence comprising aggression toward property/threats (Level Two). The results from the investigation also yielded AUCs within the Learning Disability Directorate that were not statistically significant for the individual item of psychopathy. The evidence base of the PCL-R is significant, and Guy and Wilson (2007) cite empirical support form thirty-one studies conducted in a range of forensic settings over the past decade. The evidence for the PCL-R's association with violence recidivism (including intra-institutional violence) was therefore supported by the present investigation.

Early Maladjustment (H8) at home school or community before the age of 17 was predictive of Any Violence at T1 and Level Two Violence over the twelve-

month investigation. This finding replicates empirical studies conducted within forensic populations with the presence of recidivism of (physical) violence within institutional settings (Krakowski & Czobor, 2004).

The presence of a Personality Disorder (H9) was one of the most robust single factor predictors of intra-institutional violence, and was predictive across all levels of violence over the two time periods under investigation. Individuals who met the criteria for at least one DSM-IV diagnosis were more likely to act violently than those without the presence of a personality disorder, and provide support to previous studies with similar findings in community forensic settings (Hiscoke, Langstrom, Ottoson and Grann, 2003; Ulrich & Marneros, 2004).

Clinical Items

Negative Attitudes (C2) and Impulsivity (C4) were robust predictors of Any, Level One and Level Two Violence for each of the two time periods investigated. Entrenched pro-criminal attitudes (C2) has had limited support in the literature for individuals contained within institutions, however support has been demonstrated within international community forensic samples (Williams, Van Dorn, Hawkins, Abbott and Catalano, 2001).

The presence of behavioural and affective instability (Webster *et al*, 1997) (Impulsivity, C4) was a highly robust predictor or future violent intra-institutional behaviour, and constitutes an important finding of the present study. The absence of the moderating effect of self-regulatory cognitions, and the ability to remain composed were therefore demonstrated to contribute to the manifestation of violent

behaviour. This individual subscale has been supported by contributions to the literature from Cornell, Peterson and Richards (1999) in juvenile offending samples within institutions, in terms of the predictability of physical violence. Studies from community samples have demonstrated the presence of impulsivity and an increased likelihood of subsequent violent (and sexual) recidivism (Firestone, Nunes, Moulden, Broom & Bradford, (2005), cited in Guy & Wilson, 2007).

Risk Items

Lack of Personal Support (R3), Noncompliance with Remediation Attempts (R4) and Stress (R5) were predictive of violence with varying levels of accuracy over the twelve-month investigation. The absence of a pro-social support network (R3) was predictive of Level One violence at T2 and Level Two violence at T1. Individuals (in forensic community samples) with the absence of social modelling or quality relationships with significant others, have been found to experience feelings of threat and hostility from others (Estroff, Swanson, Lachiotte, Swartz & Bolduc, 1998) that may also be relevant to a high-secure forensic sample.

Noncompliance with Remediation attempts is defined in the HCR-20 manual as linked to the item of Impulsivity, a finding that has been replicated by the present study (as shown by the findings related to C4 described above). Item R4 was a significant predictor of intra-institutional violence including Any Violence at T1, and Level One and Level Two Violence at both time periods. Individuals assessed as at risk of failure to comply with therapeutic, medication, supervision or management plans therefore demonstrated greater prevalence of subsequent aggressive behaviour, compared with individuals who did comply with appropriate interventions. The

motivation to succeed in reducing recidivistic behaviour may therefore be absent within this population, exacerbating the presence of risk. This assertion has been supported by community violence studies (Swansonm, Swartz, Borum, Hiday, Wagner and Burns, 2000), but no such evidence has been apparent for individuals within forensic institutional settings.

The presence of stressors that may have a destabilising influence on the vulnerabilities of individuals to the subsequent manifestation of Any, Level One and Level Two Violence was apparent during the present investigation. The relationship between stress and violence has been supported within community samples (Eitle & Turner, (2002), cited in Guy and Wilson, 2007). The proximal (dynamic) exposure to stressful events (experiencing assault, accidents, refusal for parole), coupled with a history of exposure to traumatic events (also evidence for Early Maladjustment) has been shown to increase the likelihood of subsequent episodes of aggression.

Additional Individual Items of the SCJ: Risk and the Prediction of Intra-Institutional Behaviour

Similar trends as observed during the predictive ability of the individual subscales of the SCJ: Risk were observed for the utility of individual risk factors. The present investigation provided empirical support for the predictability of violence risk for individual items contained within the HCR-20.

As observed during the investigation of subscale scores, behaviours for which IR1s were infrequent, yielded AUCs with low or no predictive utility (relating to Escape (E1-5) and Vulnerability (V1-5) in particular). The predictive ability of

individual risk factors in terms of the predictability of violence were most robust for items contained within the HCR-20. The study also established the predictive utility of specific risk factors within the SCJ: Risk. Additional items relating to a history of fire-setting (H15, Arson) and previous evidence of acting with others to cause disorder (H18, Concerted Indiscipline) were found to be predictors of violent behaviour. An item with similar content to H18 that was predictive of 'Any Violence' and Level Two Violence was (E5) the presence of Subversive Behaviour. Dynamic items related to the frequency of self-harm / suicide attempts were also predictive during the second phase of investigation (S1, Frequency), as was Hopelessness (S2). Dynamic factors relevant to Vulnerability of risk from other patients in terms of the presence of Physical/Physiological Problems (V2), Psychological Problems (V3), and Social Problems (V4) were also predictors of subsequent behaviour.

The investigation of the predictive utility of subscales showed the additional subscale of Suicide/Self-harm to be predictive of corresponding behaviour. When investigating the individual risk factors related to Suicide/Self-harm, all five (S1-5) showed validity, indicative of the value of the inclusion of these items within the SCJ: Risk. Prior history of suicide attempts or concerns (H13) and a history of self-harm (H14) were also indicative of subsequent self-harming behaviour within the institution. The predictive validity of individual risk factors within the subsection of Vulnerability (V3, Psychological Problems; V4 Social Problems and V5 Exploitation) were predictive of behaviours relevant to Suicide/Self-harm.

The inclusion of factors related to the prediction of behaviours relevant to Escape/Abscond risk were problematic to assess due to the low baserates of behaviour (due to the physical security of the institution), and as such, no one individual risk factor within this subscale was shown to have predictive utility. As reported in the summary of the predictive accuracy of subscale items, vulnerability of risk from other patients were not predicted by the presence (or absence) of individual factors within the Vulnerability subscale (with the exception of the Presence of Psychological Problems, (V3) at T2). A reason for this observation (similar to the explanation of Escape/Abscond) may be due to the low frequency of behaviour recorded within the hospital (8% at T1 and 9% at T2).

The risk of organised action in collaboration with others to subvert security and safety was not predicted by any individual Historical risk factor. Such behaviours were related to the presence of risk related to recent clinical presentation related to entrenched pro-criminal attitudes or beliefs (C2); Impulsivity (C4) and Noncompliance With Remediation Attempts (R4). The presence of Physical / Physiological Problems (V2) and Subversive Behaviours (E5) also yielded statistically significant AUCs indicative of predictive utility of these individual risk factors.

5.9 Discussion

The investigation of the predictive accuracy of the SCJ: Risk necessitated that the instrument was analysed in a quantitative manner. For research purposes, the system was therefore used in an actuarial way with the goal of achieving a probabilistic estimate of the likelihood of future violence (and other behaviours) based on judgements made by clinical teams, which were translated into scores. However, in 'real world' ongoing clinical practice, and adherence to the philosophy of the SPJ approach, scores from the SCJ: Risk should not be used in an actuarial way. Instead, judgements should be used to create risk management plans with the goal of the prevention of undesirable intra-institutional behaviours.

The findings of the present chapter investigating the predictive validity of the HCR-20 within forensic psychiatric samples highlights the value of regular assessment of risk variables on behaviour, especially in identifying aggravating or mitigating mental health variables (Monahan *et al*,. 2004). Macpherson *et al.*, (2004) found the majority of studies 'predicting' intra-institutional violence adopted a retrospective-prospective design. Due to the longitudinal nature of risk prediction and possible violent behaviour, many studies have adopted such a design (see above). A naturalistic or ecologically valid setting for risk assessment is said to be "prospective, i.e. the assessment is made before the criteria is observed and measured" (Dernevik *et al.*, 2002, p.94). Dernevik *et al.*, (2002) also argue that it is reasonable to assume that an assessor (having made the judgement) may be subject to decision-making biases. A retrospective assessor however need not meet the individual on whom the judgement has been made, and may rate behaviour without the confounding variable of knowledge of the assessment of risk. However, within

the context of the current investigation, use of the independent official hospital incident recording system was chosen in an attempt to avoid this possible confound. However, it may be argued that despite attempts to minimise this confound, clinician's prior knowledge of an individual's institutional behaviour may influence the outcome of risk predictions. In the context of the present study, although the risk judgements were made prior to the manifestation of intra-institutional behaviour, a clinician's (or whole clinical team) judgement may be influenced by an individual's behaviour prior to completion of the SCJ: Risk. For example, an individual may frequently engage in assaultative behaviour, and historically (or immediately prior to the assessment) have many recorded incidents of this nature. The design of the current investigation may therefore be seen as compromised by decision-making biases held by clinical team members as a result of knowledge of an individual's previous behaviours.

A strength of the current investigation was the prospective design of the study. de Vogel and de Ruiter (2006) report that only three published studies at the time investigated the predictive validity of the HCR-20 utilising a prospective design (Belfrage *et al.*, 2000; Dernevik, Grann, & Johansson, 2002; Dolan & Khawala, 2004, cited in de Vogel and de Ruiter, 2006). A further strength was the ecological validity of the investigation and relevance to actual clinical risk assessment as part of ongoing clinical practice. The majority of the published literature relevant to the HCR-20 described a methodology involving coding of the instrument by independent researchers, rather than a multidisciplinary team of relevantly trained practicing clinicians. The present investigation did not rely on coding of the HCR-20 by reliance of a single rater using file information, but by

clinical knowledge of the patient by a range of clinicians. In this way the study has remedied a problem raised by Webster, Muller-Isberner, and Fransson (2002) that "much more *in situ* research needs to be accomplished with instruments such as the HCR-20" (p.189).

5.10 Chapter Summary

The aim of the present Chapter was to investigate the predictive validity of the SCJ: Risk as an adaptation of the HCR-20 within a forensic psychiatric population in conditions of high security. The application of descriptive analysis and Receiver Operating Characteristic Analysis allowed assessment of the relationship between the risk measure and outcome behaviours of interest. In this way, an investigation as to the accuracy of subscale and individual risk factor scores comprising the SCJ: Risk to predict intra-institutional behaviours of interest was achieved. Analyses for the prediction of Violence, Self-harm/Suicide, Escape, Vulnerability and Subversion of Security yielded AUCs showing variability in the predictive accuracy of subscales and individual items comprising them across the various populations within Directorates of a high-secure hospital. Variability of the predictive utility of the SCJ: Risk was also observed between the two time periods investigated.

Chapter Six

Risk Management

A Prevention-Based Paradigm of Risk

6.1 Introduction

Previous chapters have outlined various approaches to risk assessment (Chapter Two), the application of structured professional judgement in practice (Chapters Three and Four) and the ability of risk assessment systems to predict behaviours of interest (Chapter Five). The predictive accuracy of items and subscales related to risk was necessary to validate the efficacy and relevance of a risk assessment tool to the population to which it was applied (Chapter Five). However, Douglas and Kropp (2002) assert that it is misguided to equate the success of a risk assessment tool with the effect size obtained through statistical manipulation of variables, and further suggest that the effectiveness of a risk assessment system may be evaluated in terms of its relevance to risk management and the prevention of behaviours.

There is a critical issue pertinent to the process of implementing any structured clinical judgement of risk, namely the relationship between assessment and management of risk. Hart (1998) states that: "Clinicians are bound-morally, ethically and legally-to prove themselves wrong when they 'predict' violence; they must take every reasonable action to ensure that those at high risk for violence do not act violently" (p.123). Dernevik *et al.*, (2002) further explains "...in an ideal world, a good practice of risk management should invalidate the risk assessment by averting and containing adverse events". Therefore, clinicians' interest is in the prevention of violent (and other) behaviour, and it is problematic to see how one can distinguish between a valid, reliable risk assessment method and a false positive (prediction error, see Chapter Five).

The focus of the present chapter was to examine the relationship between the identification of patients as high-risk with regard to the occurrence and time to manifestation of subsequent intra-institutional behaviour relevant to the security needs of a high secure forensic setting. Risk management reflects a shift in conceptual thinking from a prediction-based (Chapter Five) to a prevention-based paradigm. The current chapter therefore reflects contemporary thinking and investigates conceptual developments such as distinctions between static and dynamic risk factors, instruments to assess risk, methodological design and statistical methods for investigating the prevention-based paradigm to risk management. The SCJ: Risk was investigated to ascertain its efficacy as a prevention-based risk assessment and management system.

6.1.1 Risk Management. A Shift from a Prediction to a Prevention-Based Paradigm

The aim of risk management is to identify and manage risks before they manifest themselves (Mullen, 2000). The process of risk management may be understood as the application of information and knowledge with the aim of containment or prevention of undesired behaviours. "It deals with the kinds of supervision, interventions, and treatments that are apparently required in the particular case in order to minimise...risk" (Webster and Hucker, 2007. p.16). Via effective management, behaviours may be prevented from manifesting.

A clearly defined method for assessing risk for violence and other behaviours in offenders is essential to the criminal justice system. An effective system will inform the assessment of risk for community and institutional violence. Fuller *et al.*,

(1999) suggest, if used correctly in a multidisciplinary way, the assessment may inform risk management (such as monitoring, identification of treatment needs, supervision levels, and victim safety planning). Due to the nature of the client group within the setting of a maximum secure hospital, the management of the risk of physical assault toward self, staff and other patients is of significance. Macpherson *et al.*, (2004) assert that an effective system of predicting intra-institutional violence in a secure hospital setting is therefore critical in reducing the negative correlates of inpatient violence (staff burnout; staff hostility and the use of physical restraints).

The ancient warrior-philosopher Sun Tzu's text *The Art of War* teaches that knowledge of the problem is key to the solution. The two thousand year old text may be seen to have relevance to informing strategy within modern forensic institutions. The book describes a tale of a family of three brothers who are healers. When asked who was most skilled in the art of healing, the brother who achieved fame and wealth replied that, of three brothers his name was the most synonymous with science as he cured those who were seriously ill by the application of treatment, saying "...from time to time my name gets out and is heard among the lords". The remaining two brothers were less well known. One brother cured sickness in the early stages of manifestation when the sickness was "...still extremely minute, so his name does not get out of the neighbourhood". The other brother "...sees the spirit of sickness and removes it before it takes shape, so his name does not get out of the house" (Cleary, 1988). Each was skilled in the art of healing, but the brother who was least well known did not achieve fame as he intervened before a significant problem had occurred. The application of knowledge and early implementation of intervention strategies before an illness could manifest was achieved thus negating the need for

the subsequent application of medicine. As the illness was never known, no credit was attributed to this brother, compared to his famed sibling who intervened using sophisticated techniques after noticeable problems had developed, so alleviating suffering.

This story is analogous to the processes of risk assessment and management of offenders, and the differentiation between prevention and treatment (Munoz, Mrazek and Haggerty, 1996; cited in Douglas and Kropp, 2002). Academic literature has therefore paralleled the status of the famed physician and his relatively unknown brother. The attention of clinicians has been directed by the literature in identifying and defining risk factors thought to be *predictive* of risky behaviours. More recently, attention has been given to evaluations of the efficacy of the interventions in reducing recidivism. The provision of therapeutic intervention may be seen as the application of a "cure", in an attempt to reduce an offender's propensity of future risk of recidivism. Therapeutic intervention has been the focus of interest within forensic psychiatry, psychology and nursing. For example, the Prison Service provides many offending behaviour programmes with cognitive behavioural underpinnings (for example the Cognitive Self-Change Programme, for violent offenders; Enhance Thinking Skills, to teach problem solving and the Sex Offender Treatment Programme, for sexual offenders). Each program has as its goal the prevention of the target behaviour of interest to minimise future adverse outcomes. The efficacy of these interventions has been critiqued within academic literature such as the "What Works" research (McGuire, 1995). Efficacy is also dependent upon the accurate identification of risk factors specific to the criminogenic needs of the individual. The development of "empirically-based structured clinical decision-

making schemes" has therefore resulted in a recent focus on the management of high-risk behaviours (in particular violence, Macpherson *et al.*, (2004, p.63); Dolan and Doyle, 2000; Douglas and Webster, 1999). Comparatively little attention has been given to the *prevention* of behaviours manifesting. However, the last decade has witnessed a shift from a prediction-based paradigm to a preventative paradigm toward risk assessment and management of behaviour.

6.1.2 The Distinction Between Risk Status and Risk State (Douglas and Skeem, 2005)

Some authors in the literature assert that early identification of risk factors and the management of targeted behaviours may prevent or reduce the probability of manifestation of subsequent behaviour. Douglas and Kropp (2002) suggest that integral notions of prevention (of violence) include "...reduction of adverse outcomes, identification of risk factors, focus on modifiable risk and targeting of high-risk populations and persons" (p.623). By virtue of their containment, the population of a high-secure psychiatric hospital have already acted in an antisocial manner. Prevention within an offending population has therefore been termed 'secondary prevention' (as to achieve primary prevention, the antisocial behaviour would not have manifest in the first instance). The literature also reflects adherence to the notion that these dynamic risk factors are the most promising in the prevention of future behaviour. Douglas and Skeem (2005) assert that a distinction may be made between *risk status*, or the emphasis on static (unchangeable) risk factors and ***risk state***, emphasising on dynamic (changeable) risk factors. The concept of risk state as a construct is relatively new to the field of risk assessment. Risk state may be understood as; "an individual's propensity to become involved in violence *at a*

given time, based on particular changes in biological, psychological and social variables in his or her life (emphasis added, Skeem and Mulvey, 2002). Central to this is a recognition that risk factors vary in the extent to which they are changeable. These range from *highly static* factors such as gender, race and history of violence, to *highly dynamic* such as substance use, weapon availability and opportunity.

The literature suggests emerging consensus on the notion that dynamic risk factors are more useful to violence reduction when compared to static risk. However, there are differences between risk state constructs. Heilbrun (1997, cited in Douglas and Skeem, 2005) distinguishes between models of risk assessment and asserts a difference between violence prediction versus violence reduction, and the applicability of risk state to intervention. Identification of relevant risk factors to aid violence reduction may be used to target corresponding treatment interventions. The correct identification of risk factors via systematic guidelines is therefore important to the process of risk management. Andrews, Bonta and Hoge's (1990) responsivity principle also asserts that structured guidelines can facilitate the identification of high-risk offenders. Once identified, such a population can be targeted for intensive treatment, and greater resources may be allocated to respond to the greater risk (or criminogenic need). Via the application of appropriate intensity of intervention, treatment may be tailored specific to the individual's risk factors in attempt to reduce or prevent manifestation of the outcome behaviour of interest. A distinction between risk state and causation has been made by Douglas and Skeem (2005). The authors agree with the assertion that identifying causal dynamic risk factors for violence is critical to developing an effective intervention to reduce risk. They cite an example, that the identification of alcohol as a causal risk factor (for violence) may (i) precede

and increase violence; (ii) may change via intervention; (iii) may predict changes in the likelihood of violence when altered. However, drinking may only be a proxy variable, for example, peer group or interaction with other medications may also factor in the likelihood of violence. Caution must therefore be given when identifying a causal variable, due to its uncertainty of interaction with other factors.

Hanson and Harris (2000, cited in Douglas and Skeem, 2005) add another layer to the debate as to risk state constructs, and distinguish between stable and acute risk factors. Clinicians may consider stable factors, (such as a trait of impulsivity) as unlikely to change over a short period of time, and may also consider acute factors (such as drug use) that may change daily. The authors suggest that by understanding the distinction, and by identifying and targeting the key dynamic risk factors specific to the individual, a schedule of how to assess and monitor risk state may be achieved to reduce recidivism. Risk state and risk factors relevant to violence and other behaviours within an offending population may therefore be seen as multifactorial. Stated another way, it is therefore important for clinicians to remain mindful that risk related behaviour has no single cause, and may be seen as a transactional process reflecting multiple causal risk factors.

6.2 Instruments to Assess Risk State

Douglas and Skeem (2005) assert that there are no empirically validated instruments specifically designed to assess risk state, but suggest there are two groups of instruments that will require further investigation as to their applicability. These are (i) General Assessment Guides (including dynamic risk factors) such as the HCR-20 and (ii) Specific Risk Assessment Guides (that focus on capturing risk state). General Assessment Guides adhere to the structured professional judgement (SPJ) approach (described in Chapter Two), and so traditionally facilitate clinicians to make a summary judgement relating to an overall level of risk (low, medium or high), thus allowing the level of intervention to be targeted appropriate to the identified risk factors. The HCR-20 has been seen as the most promising system for the assessment of dynamic risk. The system adheres to the traditional dichotomy of static versus dynamic factors by consideration of historical and current clinical factors. In addition, risk factors pertaining to the risk management and future behavioural variables are considered. Specific Risk Assessment guides differ from General Assessment Guides as they focus specifically on dynamic factors and assessing changes in risk state over time, or in response to treatment. Instruments with preliminary support for measurement of risk state include the Violence Risk Scale (VRS, Wong and Gordon, 1996, see Chapter Two). The VRS has been applied to mentally disordered offenders who have completed treatment and are being considered for release, and is oriented to assessing treatment progress and informing risk management plans. Each of the two assessment approaches may be utilised in the study of dynamic risk, and each approach may be investigated by the application of a variety of methodologies (outlined below).

6.3 Methodologies to Investigate the Prevention-Based Paradigm for Risk Assessment and Management

6.3.1 Single, Dual and Multiple Time-Point Estimates

Douglas and Skeem (2005) and Douglas and Kropp (2002) have reviewed possible methodologies for the investigation of the preventative utility of dynamic risk. Douglas and Skeem (2005) present three approaches (i) single time-point estimates, (ii) dual time-point estimates and (iii) multiple time-point estimates. The first methodology involves the investigation of the presence of risk factors at a single time-point, namely the time of violence. Risk factors are estimated in an attempt to assess whether their presence predict violence, for example, was the consumption of alcohol a factor present at the time of a violent offence? Dual time-point estimates involve an investigation of whether changes in risk factors are predictors of violence. Individuals are assessed at two points in time, and comparisons are drawn. For example scores on dynamic risk factors at time one may be compared with scores for the same factors at time two. Any differences in the prevalence of the outcome behaviour of interest may be attributable to differences in dynamic risk factors. A repeated measures approach is therefore possible within this methodology that may have applicability to consideration of treatment / management efficacy. By utilising the design it is possible to evaluate whether changes in risk factors relate to subsequent changes in behaviour (e.g. reduction or escalation). The design may however be seen to have weaknesses in terms of the limitation of only two points in time, and is dependent upon the length of time between the two. No agreed criteria or guideline exists in terms of recommendations of appropriate follow-up time periods. Too short a period may not be sufficient for an individual to respond to

treatment effectively, too long a period, and the individual may show recovery then decline, and the recovery phase would not be captured sufficiently.

The third approach of multiple time-point estimates may overcome this methodological weakness. By selecting several time-point estimates, understanding as to the interaction between individual risk factors and behavioural presentation may be ascertained. Methodologies requiring repeated assessments require the allocation of additional resources, and may not be practical in the application to a high-secure setting with competing operational demands. Mulvey (2002, cited in Douglas and Skeem, 2005) conducted twenty-six repeated measurements of dynamic risk factors in a sample of one hundred and thirty-five psychiatric patients. The sample was a subset of participants identified as high-risk for repeated involvement in violence. Patients and informants (staff) were interviewed weekly for six months to assess changes in key dynamic factors and their relation to violence. Analyses of the relationship among drinking, drug use and violence at a daily level suggested that aggressive incidents occurred in acute bursts, and were likely to co-occur. By use of multiple time-point estimates, the study was able to show how dynamic risk factors changed over time, and how these changes related to violence. The review of the three methodologies raises awareness of the need to monitor and ultimately reduce risk of undesired behaviours by employing investigations with the most robust methodology and statistical techniques possible, and illustrates the need for future studies investigating dynamic risk.

6.4 Inter-Individual and Intra-Individual Variability

As detailed in Chapter Two the SCJ: Risk system adheres to the structured professional judgement approach to risk assessment. The system does not rely entirely on the evaluation of an individual's risk status, but also considers risk state variables. Compliance with measures focusing on static factors have been considered to be of limited utility when monitoring or treating individuals identified as high-risk. Focusing on violence as the outcome behaviour of interest, Skeem and Mulvey (2002, cited in Douglas and Skeem, 2005) suggested that risk ebbs and flows over time within each individual, risk factors are not static, and that the key task of reducing violence potential is to; "go beyond evaluating baseline risk status, which focuses on inter-individual variability in risk, to assessing risk state, which focuses on intra-individual variability in violence potential".

The key task in risk management may, therefore, be seen to understand and differentiate between risk status (static) and risk state (dynamic) by evaluating risk factors and their variability over time, rather than assuming that risk is a fixed entity. Understanding risk as a state that is likely to change over time therefore has implications for understanding responsiveness to treatment interventions. Adhering to the concept of risk state, when evaluating the efficacy of a risk assessment system, it is necessary to integrate concepts of reassessment and dynamic risk and monitoring changes over time. For a system to be effective, the risk assessment may be understood as a process of making ongoing decisions about the management and treatment of mentally disordered offenders by identification of relevant risk factors that may be responsive to change. It is for this reason that the SCJ: Risk system should be evaluated in terms of its applicability as a systematic method of assessing

changeable aspects of violence and other behaviour relevant to a high-secure hospital.

Sun Tzu (the philosopher referred to above, Cleary, 1988) challenges individuals to consider everything before taking action and suggests that critical factors are evaluated to determine the highest probability of success. This philosophy is applicable within forensic psychiatry. The assessment of relative probabilities of specific outcomes to reduce the impact of unknown events is fundamental to reducing or ameliorating undesired events. In the context of the present study, early identification of risk in relation to the needs of a high secure hospital in terms of; (i) the immediate risk of harming others; (ii) the risk of suicide or self-harm; (iii) vulnerability to risk from others; (iv) the risk of escape; and (v) the risk of organised action in collaboration with others to subvert security and safety via completion of a system of structured professional judgement may lead to the effective management or reduction of behaviours manifesting. Successful management may therefore prevent further escalation that would otherwise require additional resources and further interventions. Examination as to the success of risk management interventions may be investigated by application of the statistical methods described below.

6.5 Statistical Methods to Investigate the Prevention-Based Paradigm of Risk Assessment and Management

6.5.1 Kaplin-Meier Survival Analysis

Douglas and Kropp (2002) suggest that the research design most useful to the validation of a risk assessment system is a prospective, repeated measures study to identify, firstly, changes in risk factors over time and secondly, the relationship between these changes and related intra-institutional behaviour (as examined in Chapter Five).

The most robust statistical method for identifying the time to the first manifestation of behaviour is the Kaplin-Meier Survival Analysis proportional hazards survival analysis (non-parametric) with time dependent covariates (de Vogel and de Ruiter, 2006). Survival analysis may be understood as a time to event analysis. Two concepts are critical in understanding the interpretation of this type of analyses. The first central concept of survival analysis is the *hazard rate.* The hazard rate may be understood as the probability that the event (intra-institutional behaviour) will occur at time t conditional on surviving until time t. The second concept related to the hazard rate is the *survival function* and can be defined as the probability of surviving to time t. Hazard function is represented (or modelled) as a distribution. An increasing hazard represents a positive duration dependence (represented by an upward slope); a decreasing hazard shows negative duration dependence (a decreasing slope) a constant hazard showing a process with no change over time.

When investigating the prevention of intra-institutional behaviour, the outcome variable of interest would be the time proportion of patients who display the behaviours of interest (violence, self-harm, suicide, vulnerability, escape and subversion). Within the context of the present investigation of particular interest was the proportion of patients deemed as high risk according to Tilt versus patients not deemed as high risk displaying behaviours of interest, and the time to the first recorded display of intra-institutional infraction.

Other outcomes of interest include the median time to violence and the severity of violence. Kaplin-Meier Survival Analysis is therefore robust in modelling increases or decreases in the survival function for intra-institutional behaviour, as affected by; (a) initial risk level (presence or absence of high-risk in a Tilt category), and (b) changes in dynamic risk factors (Douglas and Skeem, 2005). By modelling these factors, it is possible to examine the increase or decrease of survival function, allowing interpretation of the effectiveness of risk management plans, and investigation as to whether identified risk factors were indeed important to time to the manifestation of subsequent behaviour.

The analysis avoids errors associated with investigation of differences between means between two (or more) time point estimates (such as error from one or more measurement period). For example, clinicians involved in the rating of risk at time one may differ from the composition of team members at the second rating. Consistency of ratings (inter-rater reliability) may therefore be problematic. Conversely, the exact same clinical team composition may result in consistency of clinician biases. By the nature of the intention of the analysis (to examine changes

over time), non-normality is assumed. The duration of the analysis (time) cannot be negative, and therefore normality cannot be assumed, hence the normality assumption of regression models (such as conventional statistical methods such as multiple linear regression) is not appropriate to an investigation of changes in risk factors and subsequent intra-institutional behaviour over time. Another advantage of the analysis that unequal follow-up periods between patients is controlled.

6.6 SCJ: Risk as a Prevention-Based Risk Assessment System

The SCJ: Risk as a system of structured professional judgement may be seen as applicable to the prevention-based paradigm of risk assessment. Chapter Two outlined that the HCR-20 system contains 10 primarily static factors (Historical) and 10 dynamic factors (Clinical and Risk). In addition, the SCJ: Risk has 10 additional static (Historical) and 15 further dynamic factors (Suicide, Vulnerability and Escape) related to Suicide/Self-harm (5); Vulnerability (5) and Escape (5). The SCJ: Risk also contains a summary of risk section where a patient deemed to be high risk may be identified, and a management plan documented for factors related to violence; self harm / suicide; escape; vulnerability and subversion. In this way, patients may be divided by risk level, and so corresponding intervention and management strategies may be targeted. *The HCR-20 Violence Risk Management Companion Guide* (Douglas *et al.*, 2001) accompanies the HCR-20 manual of item definitions, explanations and scoring criteria. For each of the dynamic factors (Clinical and Risk) recommendations and guidance as to targeted strategies for treatment and intervention efforts to reduce violence is given to supplement standard clinical practice.

In the context of the present study, patients not defined as high risk did not have additional management plans documented to inform clinical teams of how to target treatment and interventions specific to the risk identified. For these patients, existing treatment and management approaches were be documented as part of ongoing clinical practice (see methodology below).

6.6.1 Aims and Objectives

For the system of Structured Clinical Judgement to be useful, it was necessary to demonstrate that the system effectively informed risk management and the reduction of outcome behaviours (detailed in Chapter Five) among individuals within a high-secure forensic hospital. Douglas and Kropp (2002) suggest: "Risk assessment should be considered successful when we can demonstrate reduced rates of violence in connection with risk assessment procedures" (p.623). This chapter reflects the reconceptualisation within the field of risk assessment toward attention to the identification of strategies to reduce risk, rather than specification of who will or will not display the undesirable outcome behaviour of interest. The investigation into the predictive validity of the SCJ: Risk system (Chapter Five) focused on whether independent variables (or presence of identified risk factors) predict an event. The aims of this research chapter were therefore to determine if independent variables explain the *time* it takes for the dependent variable to occur, and whether risk management plans for high risk patients reduce the identified behaviour of interest. In an attempt to achieve these aims, the present chapter investigated and compared two time periods, reflecting use of the SCJ: Risk system in clinical practice; six months prior to an implementation deadline, and six months following the deadline.

The rationale for the investigation of two distinct time periods was the same as defined in Chapter Five (Section 5.7.3).

Douglas and Kropp (2002) made a significant contribution to the conceptual development toward the prevention-based paradigm. They recommend a model of risk assessment and outline validation steps necessary for future empirical research. This chapter encompassed the recommendations made for investigating the assertion that prevention, not prediction is the goal of risk assessment. By incorporating the recommendations made by the authors to the current investigation, methods for assessing changeable aspects of violence (and other) risk and systematic methods of targeting risk to reduce violence were applied as part of the evaluation of the efficacy of the SCJ: Risk system's preventative utility.

6.6.2 Research Questions

Two research questions were posed:

Do final Tilt summary judgements, and the identification of patients as high risk impact on the presence of related intra-institutional behaviour (as defined by any differences between the two time periods investigated)?

Do final Tilt summary judgements, and the identification of patients as high-risk impact on the time it takes for intra-institutional behaviour to occur (as defined by any differences between the two time periods investigated)?

6.6.3 Hypotheses

Hypothesis One

In relation to the first research question, it was hypothesised that the identification of a patient as high risk and the construction of associated risk management plans would reduce the presence of corresponding behaviour. Within this hypothesis, it was anticipated that any effect of the implementation of a risk management plan would be more apparent during the second period of investigation, due to a further six months of the risk management plan being embedded within clinical practice.

HA_0: There will be no significant differences between patients identified as high risk (compared to patients not identified as high risk) in the presence of intra-institutional behaviour within each Tilt category of risk.

HA_1: There will be significant differences between patients identified as high risk (compared to patients not identified as high risk) in the presence of intra-institutional behaviour within each Tilt category of risk.

Hypothesis Two

In relation to the second research question, it was hypothesised that patients identified as high-risk in any one or more of the five Tilt categories would manifest relevant intra-institutional infractions later than patients not identified as high-risk (due to the presence of associated risk management plans). The same rationale was followed as the first hypothesis. It was anticipated that identified behaviours would manifest at a later stage during the follow-up period of the second time period

investigated, due to a greater time opportunity for associated risk management plans to become embedded within routine clinical practice.

HB_0: There will be no significant differences between patients identified as high risk, compared to patients not identified as high risk, in the time to the first incident of intra-institutional behaviour within each Tilt category of risk.

HB_1: There will be significant differences between patients identified as high risk, compared to patients not identified as high risk, in the time to the first incident of intra-institutional behaviour within each Tilt category of risk.

6.6.4 Method

6.6.4.1 Procedure

The same procedure as detailed in Chapter Five (Predictive Validity) was utilised. SCJ: Risk documentation was completed as part of ongoing clinical practice, and so the same dataset was subject to examination. As described in Chapter Three (Implementation) the SCJ: Risk has a risk management section as an integral component (see Appendix 1.1). A risk management plan was completed where the clinical team judged the patient to present as high risk in any one of the five final Tilt high risk summary judgements (related to intra-institutional behaviour indicative of risk of violence, suicide/self-harm, escape, vulnerability and subversion of security).

Official hospital incident report forms (IR1s) were used to ascertain the outcome behaviour of interest (intra-institutional behaviour detailed above). Dual time-point methodology (outlined above) was applied to examine the impact of SCJ:

Risk identification and subsequent risk management plans, and two six month periods were investigated (six months prior to a formal implementation deadline (01.07.2006 to 31.12.2006), and six months following the deadline (01.01.2007 to 30.06.2007). The frequency, characteristics and nature of patients' intra-institutional behaviour during a twelve-month period was collated via IR1 data that was subsequently compared with SCJ: Risk data. The type and prevalence of intra-institutional behaviour six months prior to full-scale implementation, and six months post implementation of the SCJ: Risk was investigated.

6.6.4.2 Statistical Analysis

Interpretation of hazard ratios yielded from Kaplin-Meier survival analysis (described above) was used to determine; (i) the presence of relevant intra-institutional infraction within patients identified as high risk compared to patients not deemed such a risk and; (ii) the time to the manifestation of subsequent intra-institutional behaviour for patients identified as high risk compared to patients with the absence of this risk status. All analyses were conducted using SPSS version 16.

6.7 Results

The results of the prevalence and time to incidents of intra-institutional behaviour relating to the five Tilt factors are presented below. Comparisons between patients identified as high risk and patients not judged to be high risk as defined by the Tilt High Risk Summary Judgement portion of the SCJ: Risk are reported.

6.7.1 Prevalence of Patients Identified as High Risk in Each of the Tilt Categories . Time One

During the first period of investigation, fifty (33%) of the total sample of one-hundred and fifty-three were identified as presenting a risk in any one of the Tilt categories as defined by the SCJ: Risk. The following numbers of individuals were identified as high risk in one or more areas as defined by the Tilt summary judgement portion of the SCJ: Risk: DSPD, *n*=9 (32%); PD *n*=8 (16%); MH *n*=7 (8%); LD *n*=9 (43%); WS *n*=17 (68%). Table E1 (Appendix Four) displays the prevalence and proportions of patients identified as high risk in each of the Tilt categories for each of the two time periods under investigation.

Just over a quarter (26%, *n*=37) of the total population were identified as high risk of immediate harm to others: DSPD, *n*=8 (29%); PD, *n*=5 (10%); MH *n*=5 (5%); LD *n*=8 (38%); WS *n*=11 (44%). Twenty-seven (18%) of the total population were identified as high risk of suicide or self-harm: DSPD, *n*=5 (18%); PD, *n*=4 (8%); MH *n*=2 (2%); LD *n*=4 (19%); WS *n*=12 (48%). Fourteen (9%) of the total population were identified as high risk of vulnerability of harm from others: DSPD, *n*=2 (7.1%); PD, *n*=1 (2%); MH *n*=0 (0%); LD *n*=5 (23%); WS *n*=6 (24%). Eight (5%) of the total population were identified as high risk of escape: DSPD, *n*=2

(7.1%); PD, *n*=1 (2%); MH *n*=1 (1%); LD *n*=13 (62%); WS *n*=4 (16%). Twenty-seven (18%) of the total population were identified as high risk of organised action in collaboration with others to subvert security and safety: DSPD *n*=5 (18%); PD *n*=4 (67%); MH *n*=3 (3%); LD *n*=3 (14%); WS *n*=12 (48%).

6.7.2 Presence of Intra-Institutional Behaviour Relevant to Tilt Final Risk Judgements. Time One

A comparison between patients identified as having the presence or absence of high risk status in each of the Tilt categories, and subsequent manifestation of relevant behaviours is displayed in Figure B1 (Appendix Four). One third of the total population were therefore identified by the multidisciplinary team as high risk in one or more of the five Tilt categories. Of the fifty patients identified within this category eighty-two per cent (*n*=41) displayed a relevant incident of intra-institutional behaviour. The remaining two thirds of patients were not deemed to present as high risk, however forty-two per cent (*n*=43) of this group displayed behaviour indicative of risk. Seventy-seven (53%, of the one-hundred and forty-five patients included in the analysis) demonstrated violent behaviour. Of the thirty-seven patients identified as presenting high risk of immediate harm to others, thirty-four (92%) subsequently manifested the corresponding behaviour. Forty-three (40%) of the one-hundred and eight patients not identified as high-risk displayed behaviour relevant to violence. There were thirty-five recorded incidents of self-harming behaviour during this time period. Sixty-seven per cent (*n*=18) of the high risk group manifested relevant behaviour, compared to fourteen per cent of patients not identified as high-risk. The prevalence of incidents related to escape were low (see Chapter Five), however thirteen per cent (*n*=1) of patients identified as high-risk and

one per cent (n=1) of patients not identified as high-risk subsequently displayed behaviour relating to a risk of escape. There were thirteen incidents related to patient vulnerability. A greater proportion of incidents were prevalent in the high risk group (29%, n=14), compared to the remaining patients (7%, n=9). A higher prevalence of incidents relevant to the subversion of security was demonstrated in the group of patients identified as high risk (26%, n=7), compared to five per cent (n=6) of patients not deemed to present such risk status.

6.7.3 Prevalence of Patients Identified as High Risk in Each of the Tilt Categories. Time Two

During the second period of investigation, the following numbers of individuals were identified as high risk in one or more areas as defined by the Tilt summary judgement portion of the SCJ: Risk: Total population n=82 (38%); DSPD n=24 (86%); PD n=14 (28%); MH n=11 (12%); LD n=12 (57%); WS n=21 (64%). Sixty-one (28%) of the total population were identified as high risk of immediate harm to others. The highest proportion identified as high risk of immediate harm to others was evidenced in LD (n=11, 52%), followed by: DSPD (n=71, 20%); PD (n=8, 16%); WS (n=14, 11%) and MH (n=8, 9%). Thirty-five individuals (16%) within the hospital were deemed high risk of suicide or self-harm, sixteen of whom were from the Directorate of WS (65%). The remaining Directorates had the following trends related to self-harm/suicide: DSPD n=6 (21%); PD n=5 (10%); MH n=2 (2%); LD n=6 (29%). Twenty-eight (13%) of the total population were identified as presenting as high risk of vulnerability of harm from others: DSPD n=10 (36%); PD n=3 (6%); MH n=3 (3%); LD n=4 (19%) and WS n=8 (17%). Fifteen (7%) of the patients within the hospital were identified as high risk of escape;

DSPD *n*=3 (11%); PD *n*=3 (6%); MH *n*=1 (1%); LD *n*=1 (5%) and WS *n*=7 (18%). Forty-two (19%) of the total population were identified as high risk of organised action in collaboration with others to subvert security and safety: DSPD *n*=10 (36%); PD *n*=9 (18%); MH *n*=4 (4%); LD *n*=4 (19%) and WS *n*=15 (60%).

6.7.4 Presence of Intra-Institutional Behaviour Relevant to Tilt Final Risk Judgements. Time Two

A higher proportion of the total population was identified as high risk during the second time period of investigation, compared to the first six-month period. Comparisons between patients deemed high risk and those with the absence of this status for each of the Tilt categories, and subsequent display of associated behaviours are displayed in Figure B1 (Appendix Four). One-hundred and twenty-seven (60%) of the two-hundred and fifteen patients analysed during this time manifested undesirable intra-institutional behaviour, seventy-two of whom were identified as high risk. Eighty-eight per cent of this group subsequently displayed relevant behaviours, compared with fifty-one per cent (*n*=55) of the patients not deemed high risk. Proportionately, eighty-five per cent of the sixty two individuals identified as high risk of immediate harm to others subsequently displayed relevant behaviours, compared to forty-four per cent (*n*=68) of patients not identified as high risk. Eighty-six per cent (*n*=30) of patients identified as high risk of self-harm demonstrated relevant behaviours compared to ten per cent (*n*=18) of the remaining patients. Despite the identification of seven per cent (*n*=15) of patients as high risk of escape, there were no recorded incidents relevant to this behaviour. Twenty incidents related to vulnerability were recorded, fifteen of which were actualised by patients not identified as high risk of vulnerability of risk from others. Proportionately, eighteen

per cent (n=5) of patients identified as high risk demonstrated relevant behaviours, compared to eight per cent (n=15) of the remaining patients. Of the patients identified as high risk of action to subvert security and safety, just over a quarter (26%, n=11) displayed subversive behaviour, compared to eleven per cent of patients not identified as high risk (n=18).

6.7.5 Summary of the Prevalence and Presence of Intra-Institutional Behaviour Relevant to Tilt Final Risk Judgements. Differences between the Two Time Periods of Investigation.

Overall, patients deemed high risk of behaviours as defined by the Tilt categories subsequently displayed relevant behaviours. The majority of patients judged to present a high risk in any one of the five Tilt categories were observed to display corresponding intra-institutional behaviour (T1 82%, T2 88%). However, the same corresponding behaviours were also found to be present in a proportion of individuals not deemed to be high risk (T1 42%, T2 41%). A similar trend was present in the investigation of the prevalence of violence. The majority of patients identified as immediate risk of harming others did go onto display violence (T1 92%, T2 85%), indicating the appropriate identification of high risk individuals. However, a proportion of individuals deemed not to be high risk of violent behaviour displayed such behaviour (T1 40%, T2 44%). The identification of high risk individuals in relation to any intra-institutional violence may therefore be seen as accurate, however not all individuals were identified at both time periods. During the first time period, just over two-thirds (67%) of patients indentified as high risk of suicide or self-harm displayed corresponding behaviour. A higher proportion (86%) engaged in associated behaviours in the second time period. There were fewer cases

of intra-institutional infraction amongst individuals not identified as high risk for the two periods of study (T1 14%, T2 10%).

The presence of relevant behaviours in relation to vulnerability, escape and subversion was proportionately higher for patients identified as high risk. Twenty-nine per cent (T1) and eighteen per cent (T2) of those identified as vulnerable to risk from others were subsequently recorded as having had a risk presented to them. Lower occurrences of this behaviour were observed amongst patients not identified as vulnerable (T1 7%, T2 8%). Thirteen per cent of individuals identified as high risk of escape displayed behaviours of concern during the first period, and no incidents were observed during the second time period. Just over a quarter of patients indentified as high risk of organised action in collaboration with others to subvert security and safety showed evidence of associated behaviours in the months following the judgement. Fewer patients not defined as high risk of subversion subsequently manifested this intra-institutional infraction (T1 5%, T2 11%).

As reported in the previous chapter, variability between the identification of risk was apparent between categories of intra-institutional behaviour. In relation to the first experimental question and hypothesis, the current investigation has shown that there were proportionate differences in the presence of intra-institutional infraction for patients identified as high risk compared to patients not defined as high risk within each category. The most robust differentiations between patient risk status were prevalent for the Tilt categories of immediate risk of harming others and risk of suicide or self-harm. Categories relevant to risk of vulnerability, escape or

subversion did not show as convincing proportionate differences between the presence and absence of behaviour.

Differences between the two time periods, pre and post implementation were therefore observed. During the second period of investigation, a greater proportion of individuals identified as high risk in any one of the five Tilt categories subsequently displayed corresponding behaviours, compared to the pre-implementation period. The same trend was found for patients identified as immediate risk of suicide or self-harm. It was anticipated that once behaviours had been identified as a risk, the associated risk management plan would constitute an intervention that would minimise or ameliorate the manifestation of that behaviour. This interpretation may not be seen as applicable any intra-institutional infraction, or suicide or self-harm. However, patients identified as high risk of immediate harm to others, vulnerability to risk from others, and escape, displayed lower incidents of corresponding behaviours during the second time period following the formal implementation of the system.

6.7.6 Time to First Incident of Intra-Institutional Behaviour Relevant to Tilt Final Risk Judgements

6.7.6.1 Any Intra-Institutional Behaviour

Survival analyses comparing presence versus absence of high risk patient status groups on the number of months from assessment to the first incident of any intra-institutional behaviour were highly significant. Analyses indicated that the survival plots (the proportion of patients who had not displayed any intra-institutional behaviour at given points in time) of the two groups were different from

one another (Log Rank T1 (n=153) = 58.4, p=0.000; T2 (n=215) = 77.2, p=0.000). These values may be understood as representing that during the first time period. High risk patients were 58.4 times more likely to display any intra-institutional infraction sooner than their counterparts, and 77.2 times more likely during the second period of investigation (see Figures 6.1 and 6.2).

Sixty percent of all patients identified as high risk of any Tilt category of risk who displayed relevant behaviours had a first recorded incident within the first two months (month one 34% (n=17); month two 26% (n=13)). In comparison, four percent of those not identified as high risk showed similar behaviours (month one, 1% (n=1); month two, 3 % (n=3). Of the remaining forty percent of the high risk group, the following times to event were observed: Month three, 14% (n=7); month four, 3% (n=6); month five, 0% (n=0); month six, 2% (n=1). The remaining eighteen percent (n=9) did not manifest the behaviours for which they were identified as high risk. The time to event of relevant behaviours was longer for patients not identified as high risk, with the majority of incidents occurring in the fifth and fourth month respectively (month five, 19%, (n=20); month four, 15% (n=15). Three individuals (3%) displayed behaviour during the sixth month under investigation, and one individual (1%) during the third month. The remaining proportion did not manifest intra-institutional behaviours.

Forty-three percent (n=35) of the high risk group had displayed relevant behaviours during the first two months of the second time period under investigation (month seven, 17%, (n=14); month eight, 26%, (n=21)). Fewer incidents were recorded during the last four months of investigation (month nine, 11% (n=9); month

ten, 12% (*n*=12); month 11, 13% (*n*=11), and month twelve, 9% (*n*=7)). This trend showed that compared to the first time period of investigation, time to event was longer during the second phase of the investigation.

Similar trends to the first period of investigation were observed within the group of patients not identified as high risk, where fewer incidents of behaviour were reported during the first three months (month seven, 1.5% (*n*=2); month eight, 1.5% (*n*=2); month nine, 4% (*n*=6)). The majority of incidents therefore occurred later than the high risk group (month ten, 9% (*n*=12; month 11, 14% (*n*=18); month twelve, 15% (*n*=11).

Figure 6.1 Kaplin-Meier Survival Plot for Any Intra-Institutional Infraction during T1[1]

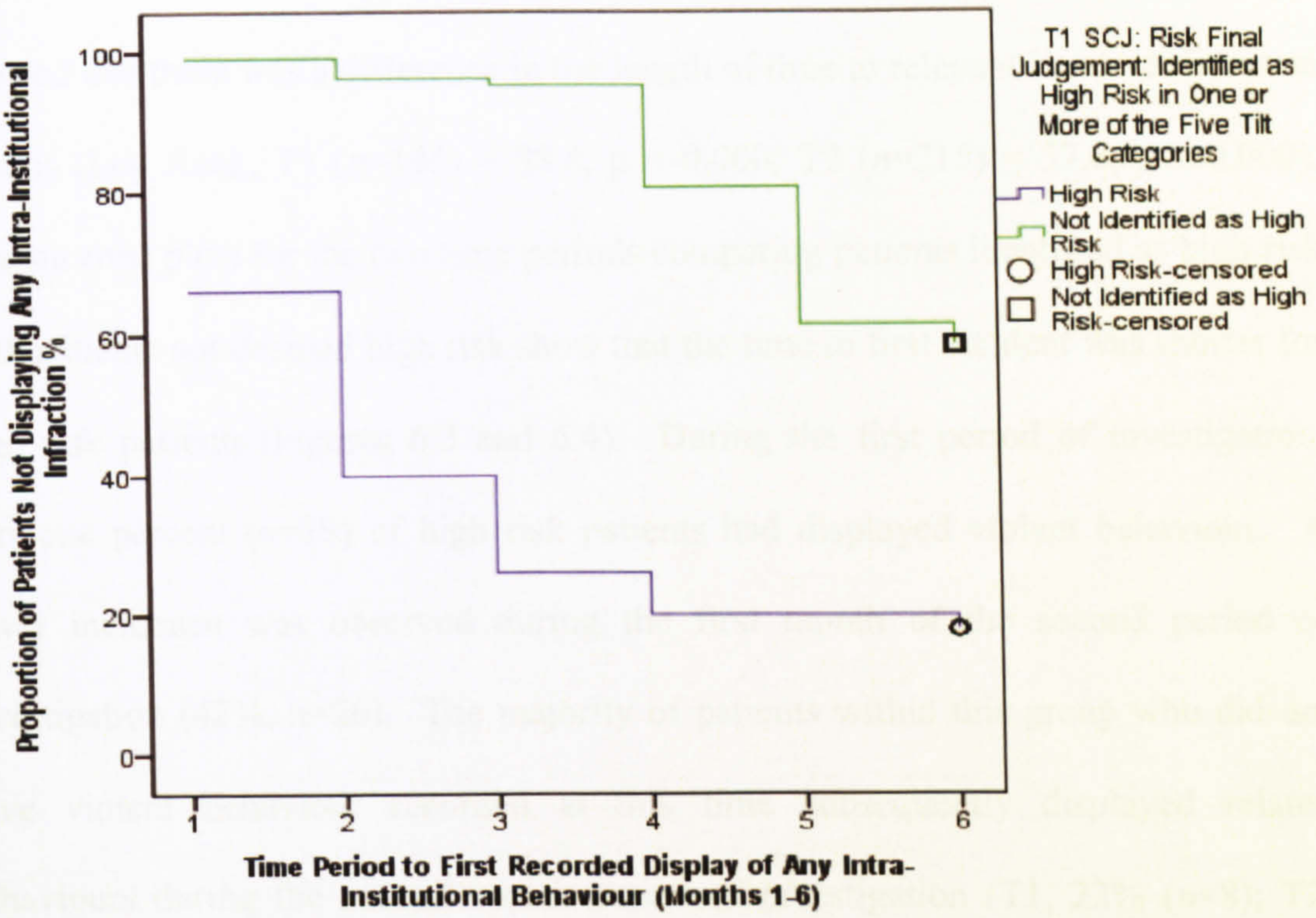
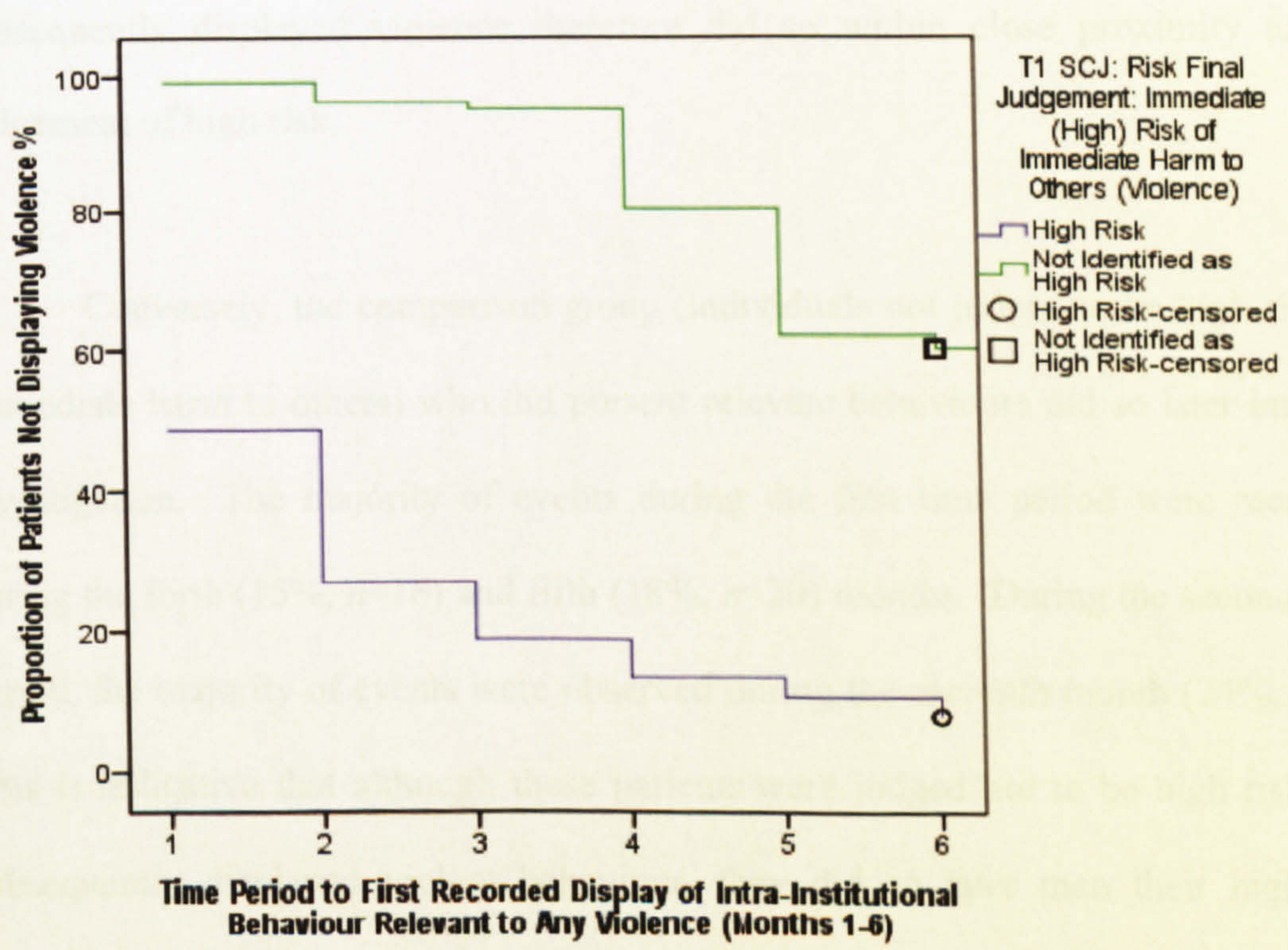


Figure 6.2 Kaplin-Meier Survival Plot for Any Intra-Institutional Infraction during T2[2]



[1] High risk patients were 58.4 times more likely to display any intra-institutional infraction sooner than patients not identified as high risk

[2] High risk patients were 77.2 times more likely to display any intra-institutional infraction sooner than patients not identified as high risk

6.7.6.2 Immediate Risk of Harming Others (Violence)

The survival analysis for the risk of immediate harm to others (violence) showed that there was a difference in the length of time to relevant incidents between groups (Log Rank: T1 (n=145) = 88.8, p = 0.000; T2 (n=215) = 57.6, p = 0.000). The survival plots for the two time periods comparing patients identified as high risk with patients not deemed high risk show that the time to first incident was shorter for high risk patients (Figures 6.3 and 6.4). During the first period of investigation, fifty-one percent (n=19) of high risk patients had displayed violent behaviour. A lower incidence was observed during the first month of the second period of investigation (42%, n=26). The majority of patients within this group who did not have violent behaviour recorded at this time subsequently displayed related behaviours during the second month period of investigation (T1, 22% (n=8); T2, 26% (n=17)). A significant majority of patients identified as high risk who subsequently displayed violence therefore did so within close proximity to the judgement of high risk.

Conversely, the comparison group (individuals not judged to be high risk of immediate harm to others) who did present relevant behaviours did so later into the investigation. The majority of events during the first time period were recorded during the forth (15%, n=16) and fifth (18%, n=20) months. During the second time period, the majority of events were observed during the eleventh month (24%, n=6). This is indicative that although these patients were judged not to be high risk, but subsequently displayed violent behaviour, they did so later than their high risk counterparts.

Figure 6.3 Kaplin-Meier Survival Plot for Intra-Institutional Violence (Harm to Others) during T1[3]

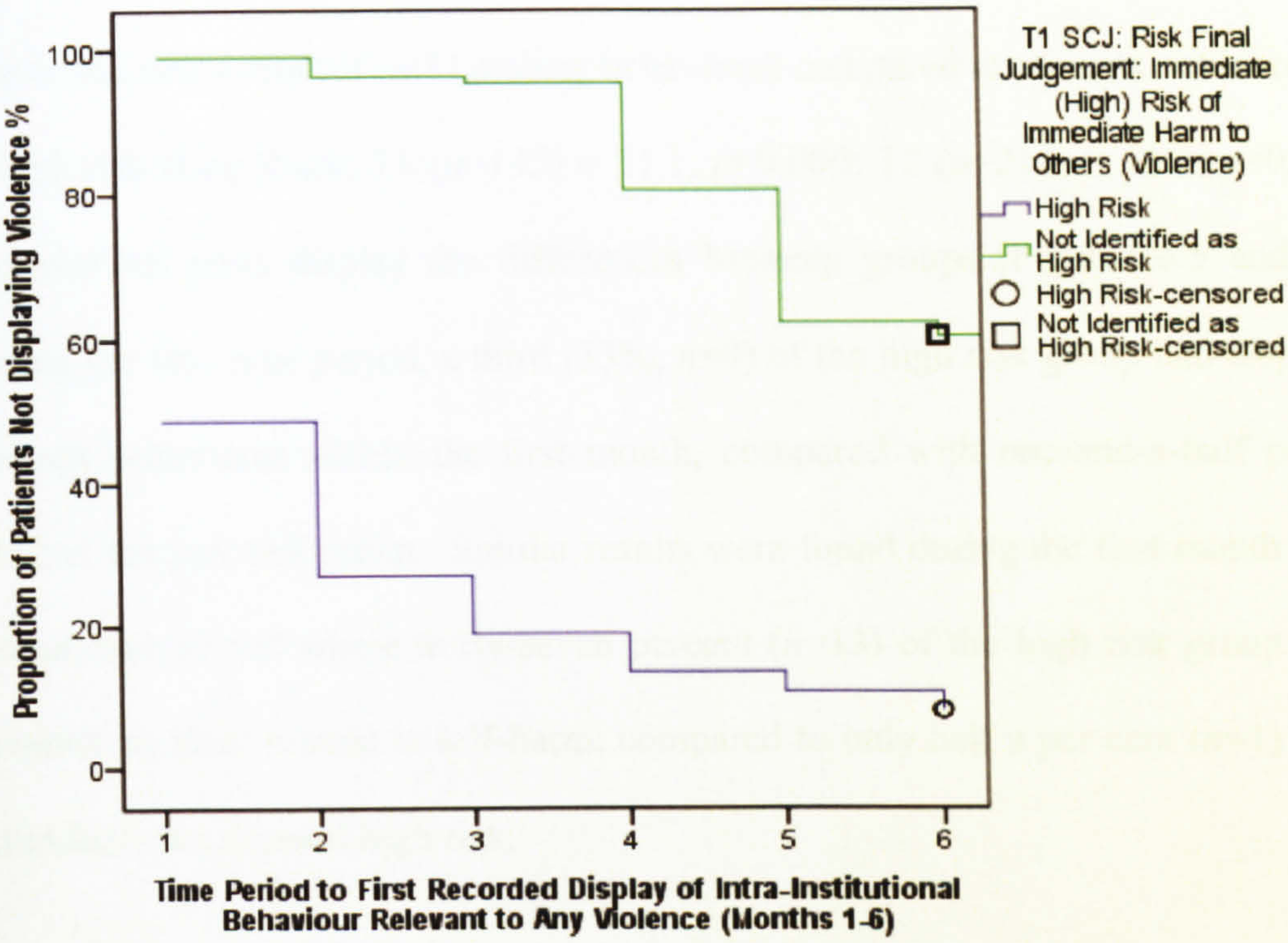
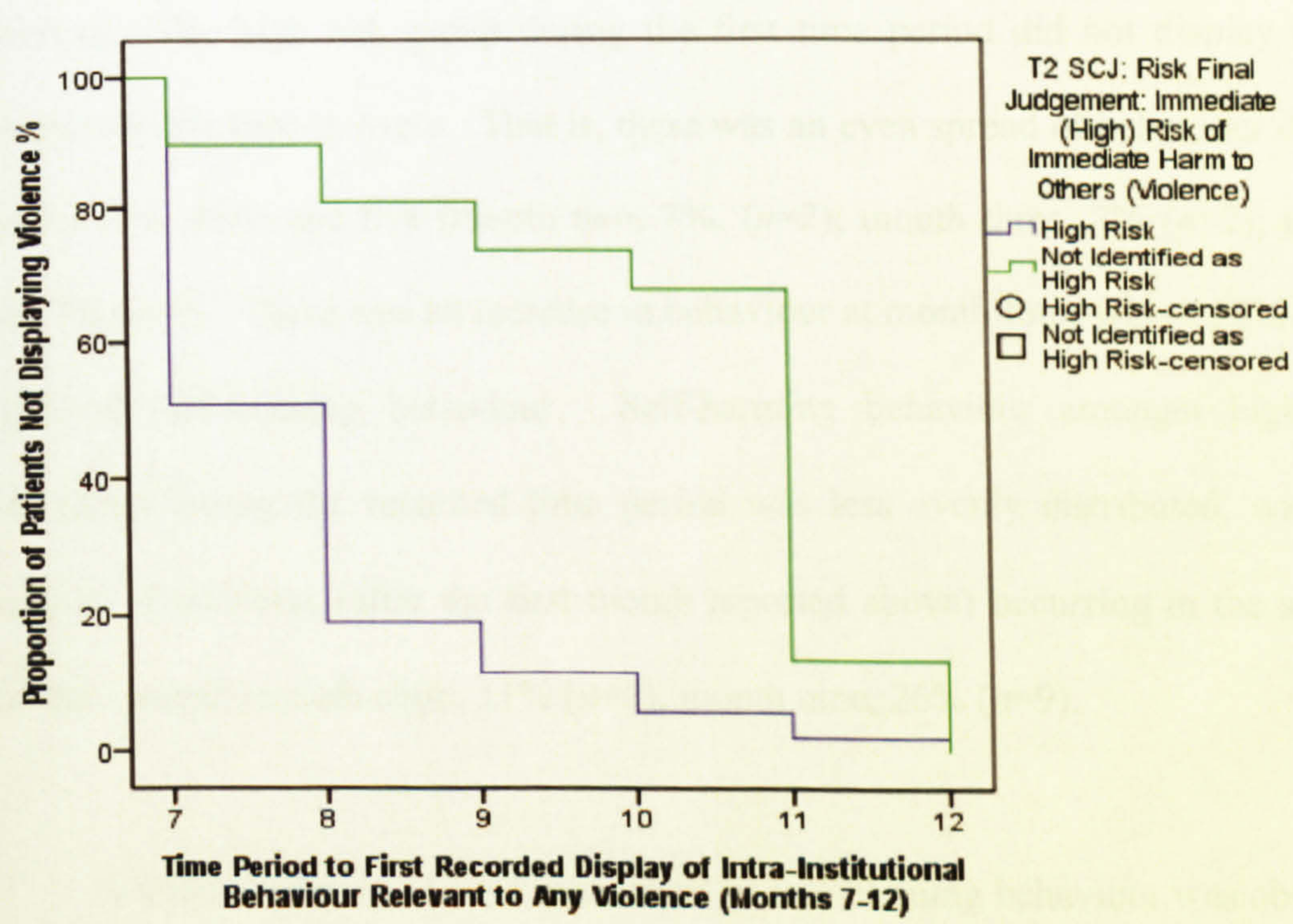


Figure 6.4 Kaplin-Meier Survival Plot for Intra-Institutional Violence (Harm to Others) during T2[4]



[3] High risk patients were 88.8 times more likely to display harm to others (violence) sooner than patients not identified as high risk

[4] High risk patients were 57.6 times more likely to display harm to others (violence) sooner than patients not identified as high risk

6.7.6.3 Risk of Suicide or Self-Harm

Patients identified as high risk of harm to self differed significantly in the time to the first event (of self-harming behaviour) compared to patients not identified as high risk (Log Rank: T1 (n=145) = 51.1, p=0.000; T2 (n=214) = 71.3, p=0.000). The survival plots display the differences between groups (Figures 6.5 and 6.6). During the first time period, a third (33%, n=9) of the high risk group had displayed relevant behaviours within the first month, compared with one-and-a-half percent (n=2) of the low risk group. Similar results were found during the first month of the second time period where thirty-seven percent (n=13) of the high risk group had a recorded incident related to self-harm, compared to only half a per cent (n=1) of the individuals not deemed high risk.

Differences between the two time periods for subsequent months were observed. The high risk group during the first time period did not display much variation in the time to event. That is, there was an even spread of behaviour during months two, three and five (month two, 7%, (n=2); month three, 7% (n=2); month five, 7% (n=2). There was an increase in behaviour at month four, where 13% (n=3) displayed self-harming behaviour. Self-harming behaviour amongst high risk individuals during the recorded time period was less evenly distributed, with the majority of incidents (after the first month reported above) occurring in the second and third month (month eight, 11% (n=4); month nine, 26% (n=9).

A longer duration of time to incident of self-harming behaviour was observed amongst patients not identified as high risk. An even distribution was recorded during the first time period (month one, 1.5% (n=2); month two, 3% (n=3); month

three, 1.5% (*n*=2); month four, 1.5% (*n*=2); month five, 3.5% (*n*==5); month six, 3% (*n*=3). Within the second time period of investigation, even fewer incidents were observed during the first five months of investigation (month seven, 0.5% (*n*=1); month eight, 1% (*n*=2); month nine, 0% (*n*=0); month ten, 29%, (*n*=4); month eleven, 0.5% (*n*=1), with six percent (*n*=10) occurring in the final month.

Compared to the high risk group, the presence of incidents was therefore lower in the group not identified as high risk of suicide or self-harm, and the time to event for those manifesting corresponding behaviours was longer. The two groups therefore differed in the number of months from assessment to the occurrence of self-harming behaviour for the two time periods investigated.

Figure 6.5 Kaplin-Meier Survival Plot for Intra-Institutional Suicide or Self-Harm during T1[5]

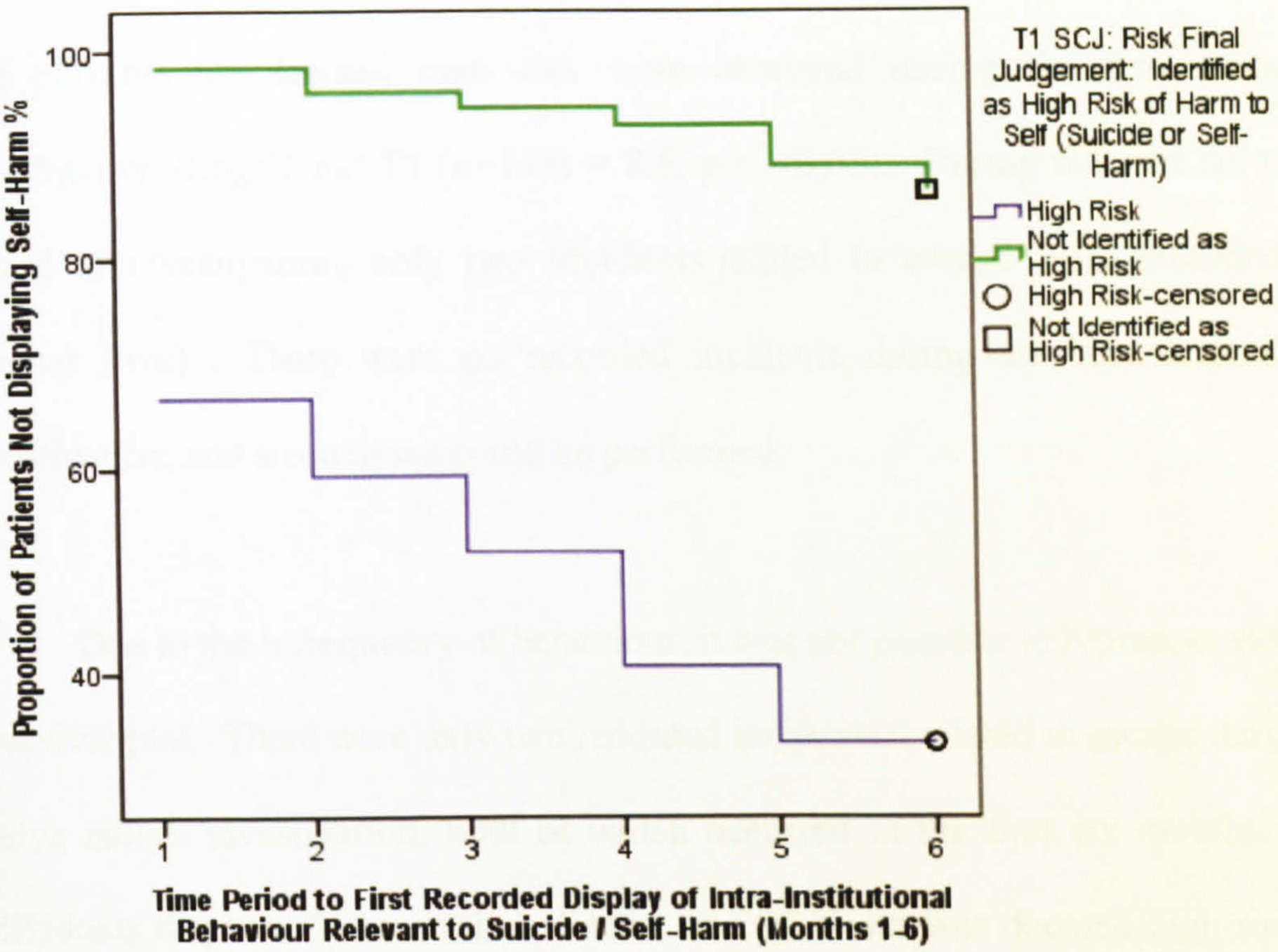
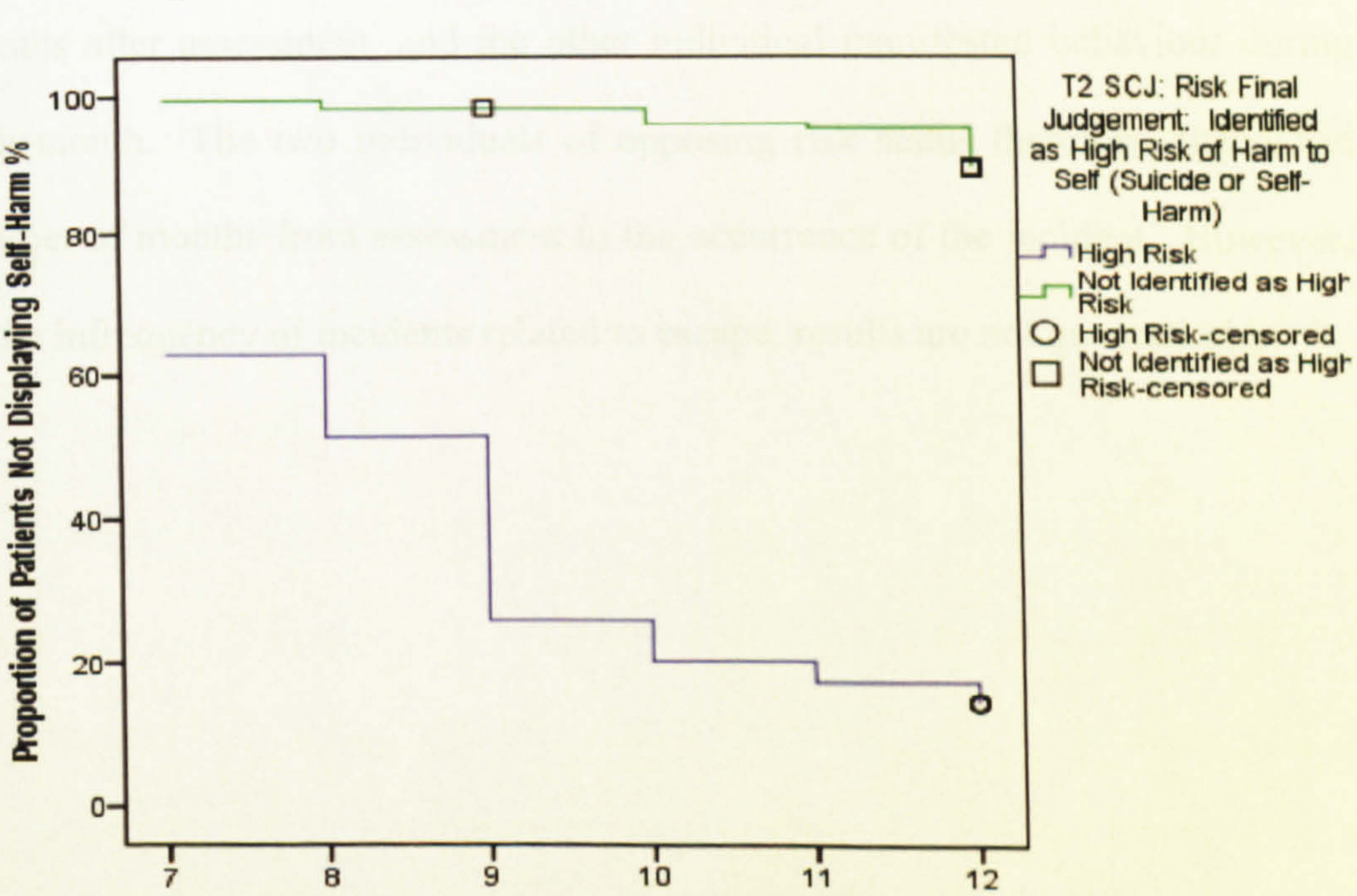


Figure 6.6 Kaplin-Meier Survival Plot for Intra-Institutional Suicide or Self-Harm during T2[6]



[5] High risk patients were 51.1 times more likely to display self-harming behaviour sooner than patients not identified as high risk

[6] High risk patients were 71.3 times more likely to display self-harming behaviour sooner than patients not identified as high risk

6.7.6.4 Risk of Escape

Statistically significant differences between patients identified as high risk and patients not deemed high risk were observed during the first period of investigation (Log Rank: T1 (n=145) = 8.6, p = <0.05). During the first six-month period of investigation, only two incidents related to escape were recorded (see Chapter Five). There were no recorded incidents during the second period of investigation, and so analyses could be performed.

Due to the infrequency of behaviour, it was not possible to represent values in a survival plot. There were only two recorded incidences related to escape during the twelve month investigation, both of which occurred in the first six months. Two individuals displayed relevant behaviours, one of whom was deemed high risk, and one of whom was not. The high risk patient displayed relevant behaviour three months after assessment, and the other individual manifested behaviour during the fifth month. The two individuals of opposing risk status therefore differed in the number of months from assessment to the occurrence of the incident. However, due to the infrequency of incidents related to escape, results are not generalisable.

6.7.6.5 Vulnerability to Risk from Others

Patients judged to be high risk of vulnerability to risk from others differed significantly from patients not judged to present as high risk in terms of time to incident of corresponding behaviour. Highly significant differences were observed during the first time period (Log Rank (n=153) = 10.5, p= 0.001). However, significant differences were not shown during the second time period (n=214) = 3.6, p = 0.005 (p>0.05). The survival plots for the two time periods of investigation show the differences between the two groups in terms of the number of days from assessment to occurrence of victimisation (Figures 6.7 and 6.8). The time to the first relevant incident within the high risk group was sooner than the comparison group. During the first period of investigation, incidents within the high risk group occurred during the first three months (month one, 7% (n=1); month two, 7% (n=1); month three, 14% (n=2). No further incidents were recorded for the remaining months. A similar trend was observed during the second time period. Although there were no recorded incidents in the first month, incidents occurred in the second and forth month (month eight, 14% (n=4), month ten, 4% (n=1)).

Patients not identified as high risk, but who displayed behaviour relevant to vulnerability did so later (when compared to patients identified as high risk). During the first period of investigation, there were no recorded incidents during the first two months, and behaviours were recorded in latter months (month three, 1% (n=1); month four 4% (n=6); month five, 2% (n=2). The largest number of incidents during the second period of investigation within the same risk status group was the fifth month (month ten) where five percent (n=10) of this group had recorded incidents.

Figure 6.7 Kaplin-Meier Survival Plot for Intra-Institutional Vulnerability (Victimisation) during T1[7]

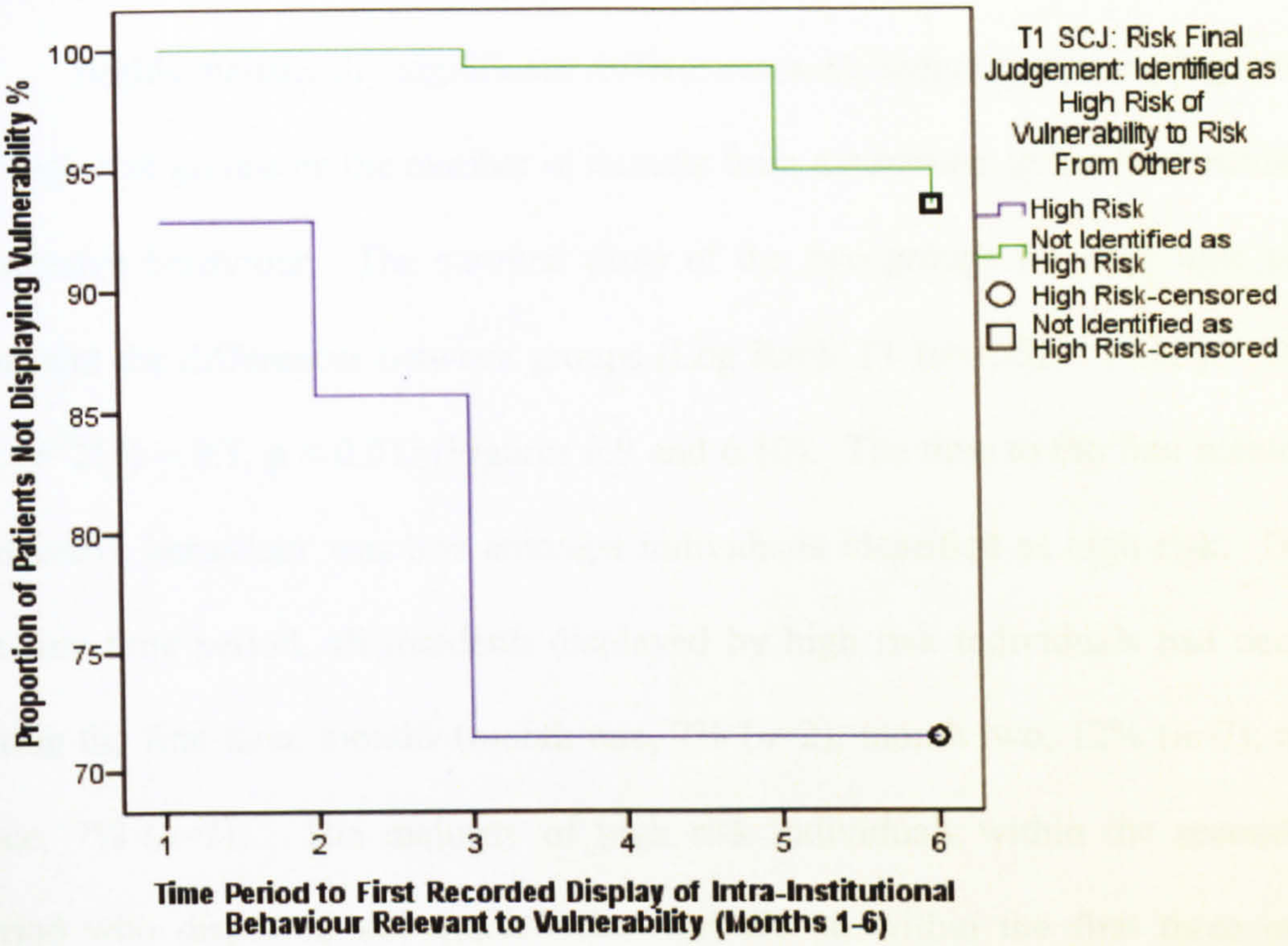
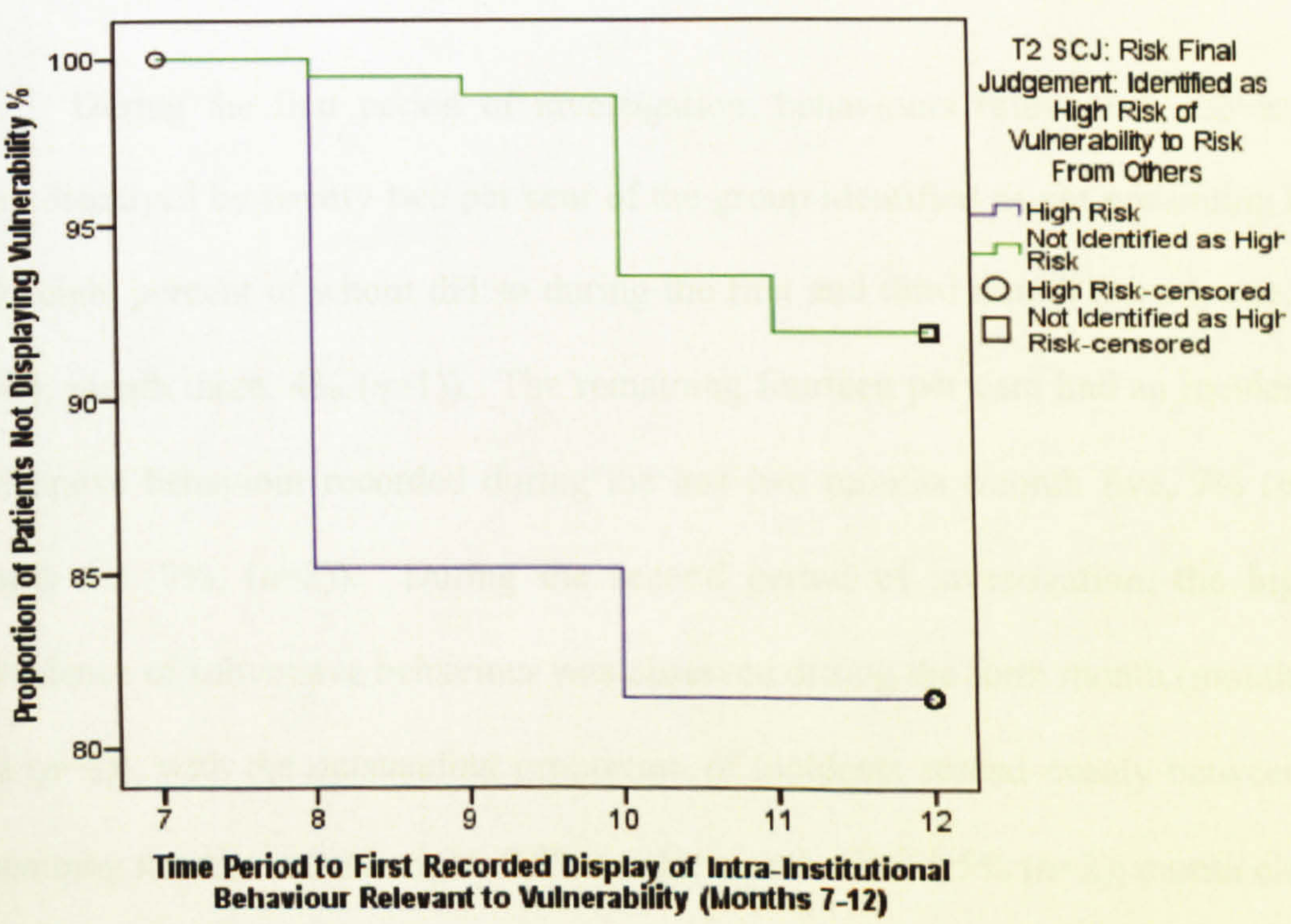


Figure 6.8 Kaplin-Meier Survival Plot for Intra-Institutional Vulnerability (Victimisation) during T2[8]



[7] High risk patients were 10.5 times more likely to be vulnerable to victimisation sooner than patients not identified as high risk

[8] High risk patients were 3.6 times more likely to be vulnerable to victimisation sooner than patients not identified as high risk

6.7.6.6 Risk of Organised Action in Collaboration with Others to Subvert Security

Highly statistically significant differences were found comparing high versus not high risk groups on the number of months from assessment to the first incident of subversive behaviour. The survival plots of the two groups for each time period represent the differences between groups (Log Rank T1 (n=153) = 14.8, p = 0.000; T2 (n=214) = 9.1, $p < 0.01$) (Figures 6.9 and 6.10). The time to the first incident of subversive behaviour was less amongst individuals identified as high risk. During the first time period, all incidents displayed by high risk individuals had occurred during the first three months (month one, 7% (n=2); month two, 12% (n=7); month three, 7% (n=2)). The majority of high risk individuals within the second time period who displayed subversive behaviour did so within the first three months (month seven, 7% (n=3); month eight, 10% (n=4); month nine, 5% (n=2)).

During the first period of investigation, behaviours relevant to subversion were displayed by twenty-two per cent of the group identified as not presenting high risk; eight percent of whom did so during the first and third month (month one, 4% (n=1), month three, 4% (n=1)). The remaining fourteen per cent had an incident of subversive behaviour recorded during the last two months (month five, 7% (n=2); month six, 7%, (n=2)). During the second period of investigation, the highest prevalence of subversive behaviour was observed during the forth month (month ten, 5% (n=8)), with the outstanding proportion of incidents spread evenly between the remaining months (month eight, 0.5% (n=1); month nine, 1.5% (n=2); month eleven, 2% (n=4) and month twelve, 2% (n=3)). No incidents were observed within the group not judged to be high risk during the first month of the second time period.

Figure 6.9 Kaplin-Meier Survival Plot for Intra-Institutional Subversion of Security during T1[9]

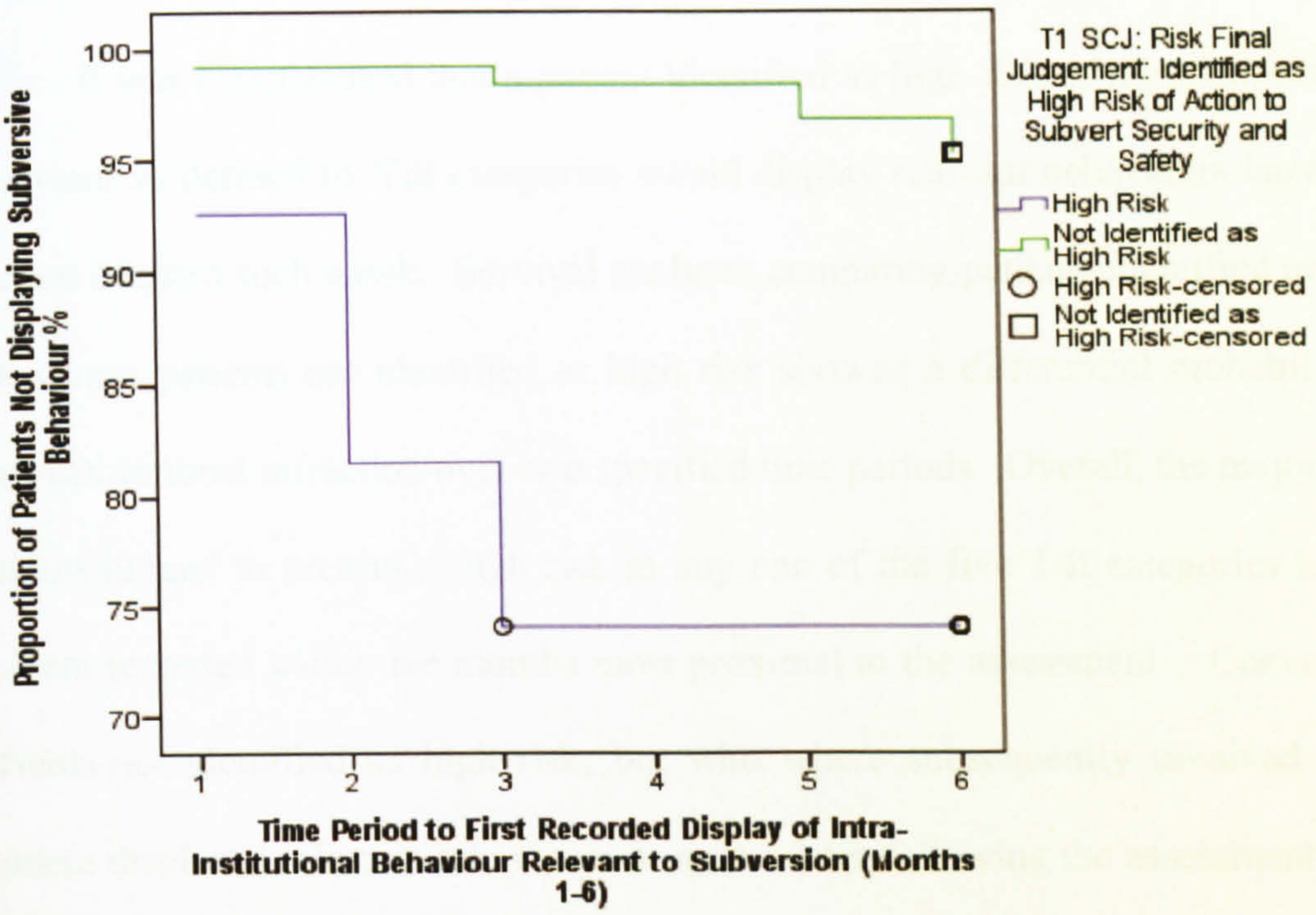
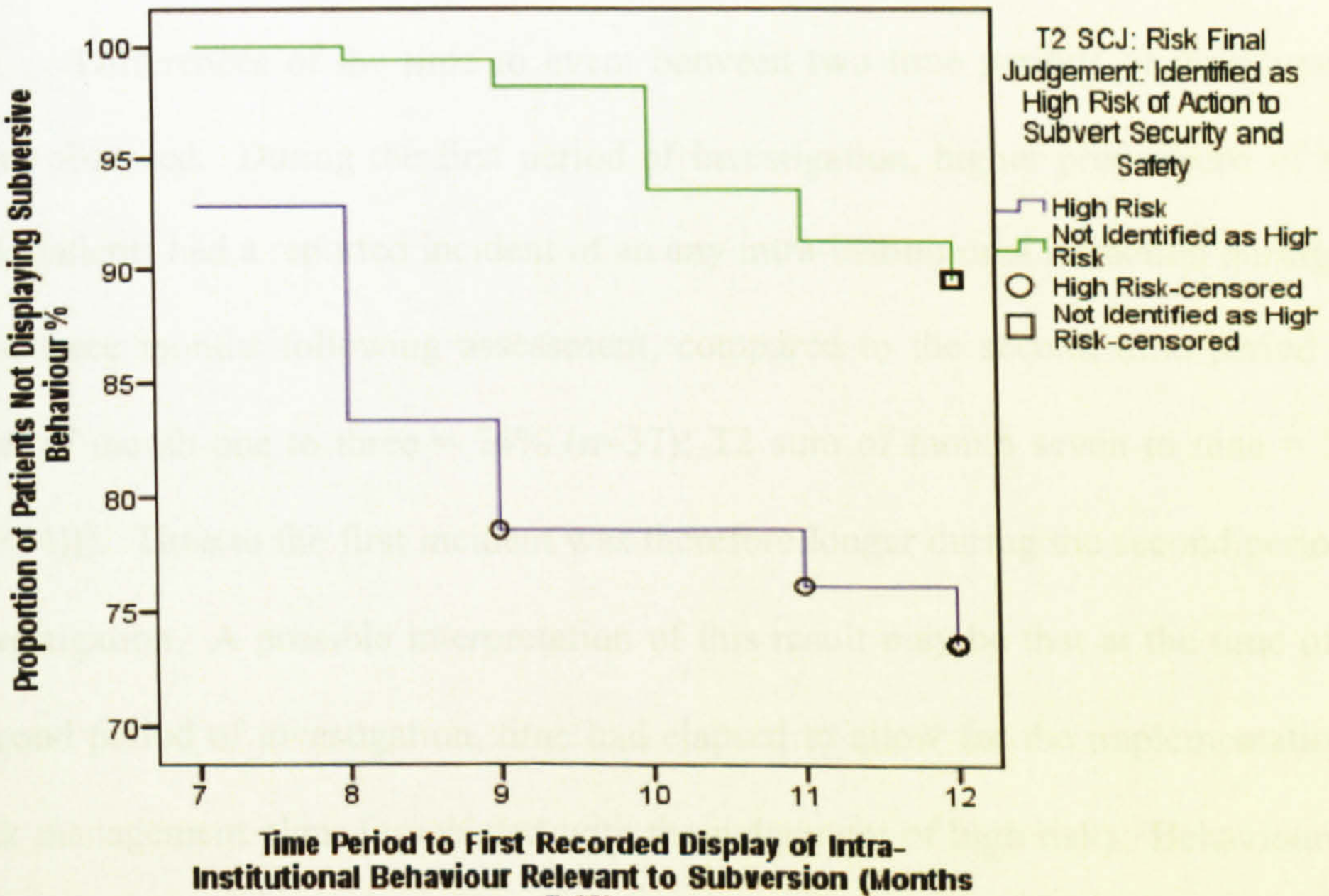


Figure 6.10 Kaplin-Meier Survival Plot for Intra-Institutional Subversion of Security during T2[10]



[9] High risk patients were 14.8 times more likely to display risk of subversive behaviour sooner than patients not identified as high risk

[10] High risk patients were 9.1 times more likely to display risk of subversive behaviour sooner than patients not identified as high risk

6.7.6.7 Summary of the Time to First Incident of Intra-Institutional Behaviour Relevant to Tilt Final Risk Judgements

It was hypothesised that a patient identified as high risk of intra-institutional behaviour as defined by Tilt categories would display relevant behaviours later than one not deemed such a risk. Survival analyses comparing patients identified as high risk versus patients not identified as high risk showed a differential probability of intra-institutional infraction over two specified time periods. Overall, the majority of patients judged to present a high risk in any one of the five Tilt categories had an incident recorded within the months most proximal to the assessment. Conversely, patients not identified as high risk, but who where subsequently involved in an incident displayed relevant behaviours as a time later following the assessment. The time to an event for patients not identified as high risk was therefore longer.

Differences of the time to event between two time periods of investigation were observed. During the first period of investigation, higher proportions of high risk patients had a reported incident of an any intra-institutional infraction during the first three months following assessment, compared to the second time period (T1 sum of month one to three = 74% (n=37); T2 sum of month seven to nine = 54% (n=44))). Time to the first incident was therefore longer during the second period of investigation. A possible interpretation of this result may be that at the time of the second period of investigation, time had elapsed to allow for the implementation of risk management plans (associated with the judgement of high risk). Behaviours for this group may therefore have been managed and occurred later than if there was no implementation of a risk management plan.

Similar trends were observed in the analyses of behaviour related to violence where eighty-one percent (n=30) of incidents occurred during the first three months of the first period of investigation, compared to seventy-five percent (n=47) during the second period. The majority of individuals displaying violent behaviour within the group not identified as presenting such a risk did so during the latter three months.

The time to manifestation of self-harming behaviour was sooner within the high risk group during both time periods of investigation. However, the trends observed in terms of time to the first incident of any behaviour relevant to Tilt factors, or violence, were not prevalent for behaviour related to self-harm. During the first period of investigation, forty-seven percent of patients identified as high risk had an incident of self-harming behaviour recorded within the first three months, compared to seventy-four percent during the second period of investigation (months seven to nine). The prevalence of self-harming behaviour increased during the second phase of investigation as eighty-six percent of individuals identified as high risk displayed corresponding behaviours, compared to sixty-seven percent in the first phase. The findings indicate that identified behaviours were not effectively managed and therefore prevented, particularly during the second time period of investigation.

No significant trends were observed for behaviour related to escape due to the absence of reported incidents (discussed above and in Chapter Five). The time to the first incident of vulnerability and subversion were present earlier within groups of patients identified as high risk. During the first period of investigation, all patients judged to pose a risk of vulnerability from others, who were subsequently involved

in recorded incidents, experienced associated behaviours within the first three months. The proportion of incidents was also concentrated within the earlier months following assessment during the second period of investigation. Similarly, all patients deemed to high risk of organised action in collaboration with others were more likely to display subversive behaviour proximal to the time of assessment. All patients within this category of risk displaying relevant behaviours did so within the first three months during the first period of investigation, as did seventy-seven percent of individuals at the second time period. Patients not judged to be high risk, but who had recorded incidents related to vulnerability and subversion were observed to show related behaviours in the latter months of each time period investigated. The results corresponding to behaviour relevant to vulnerable and subversive behaviour therefore reflect the behavioural trends observed and reported for 'any' of the five Tilt categories and violence.

Analyses therefore indicated that patients defined as high risk of any, violent, vulnerable and subversive behaviour, who were subsequently recorded as manifesting related behaviours conducted actions sooner than patients not judged to be high risk.

6.8 Discussion

It was anticipated that use of the SCJ: Risk documentation would assist clinical teams identify risk factors pertinent to individual patients, and that once identified, management strategies could be implemented. It was therefore anticipated that the *identification* of a patient as high risk, and the *construction* and *implementation* of a risk management plan would minimise the occurrence of the associated behaviour, and where behaviours did occur, there would be a longer time to the first recorded incident.

The results show that the occurrence of intra-institutional incidents was more prevalent amongst patients identified as high risk. These incidents were recorded sooner than a comparison group of patients not deemed high risk. These findings are indicative that the SCJ: Risk system effectively facilitates clinical teams identify high risk individuals for behaviours relevant to any intra-institutional infraction, violence and self-harm. However, these findings do not indicate that associated risk management plans for each identified risk were; (i) consistently constructed (using a standardised framework) nor (ii) effectively implemented.

Based on the findings, the three concepts of identification, construction and implementation appear to be critical to understanding risk prevention. To lower the probability of the identified risk from manifesting, the patient must; (i) correctly be identified as high risk; (ii) have a carefully constructed risk management plan and (iii) have the plan successfully implemented. Figure 6.11 gives examples illustrating this assertion (described below):

Figure 6.11 Interactions between the Identification, Construction and Implementation of Risk Management Plans to Explain the Occurrence and Time to First Incident of Intra-Institutional Infraction

Patient identified as:	→ Intervention required?	→ Effect on behaviour
Example 1		
Not presenting as HIGH risk	No intervention required No risk management plan required Routine care plan implemented	**OCCURRENCE** No recorded incidents **TIME TO EVENT** Not relevant
Example 2		
Not presenting as HIGH risk	No intervention required No risk management plan required Routine care plan implemented	**OCCURRENCE** Incident recorded **TIME TO EVENT** (a) Proximal time to incident (b) Latent time to incident
Example 3		
HIGH RISK	Intervention required **CONSTRUCTION** (i) POOR risk management plan **IMPLEMENTATION** (ii) Plan not successfully implemented	**OCCURRENCE** Incident recorded **TIME TO EVENT** (a) Proximal time to incident (b) Latent time to incident
Example 4		
HIGH RISK	Intervention required **CONSTRUCTION** (i) GOOD risk management plan **IMPLEMENTATION** (ii) Plan successfully implemented	**OCCURRENCE** No recorded incident **TIME TO EVENT** Not relevant

Example 1 is illustrative of an individual not identified as high risk, who correspondingly did not manifest the relevant behaviour. The construction and implementation of an additional risk management plan within SCJ: Risk documentation was therefore not necessary, and behaviour could be managed within the guidelines of routine clinical practice. The second example illustrates an individual who was not identified as high risk, therefore for whom no risk management strategy was constructed or implemented, who during the investigation, manifest associated behaviours. This may be interpreted as a prediction error (false negative, see Chapter Five). However, caution against this assertion may be warranted, as the findings indicate that the time to event for the majority of intra-institutional infractions was lower for patients not identified as high risk. Indeed, the same outcome may be interpreted as a true positive, as due to the latency of the time to first incident, these patients did not present an *immediate* risk.

The third and forth examples illustrate possible behavioural outcomes for patients identified as high risk. Example three presents a scenario where the high risk individual subsequently displays the relevant behaviour, despite the identification of a need for additional management strategies being present. This outcome may be interpreted as supportive of the predictive utility of the system, but rejecting of the assertion of the preventative utility of the SCJ: Risk. Two explanations are considered. Firstly, the management plan associated with the identified risk may have been poorly constructed. Secondly, the documented risk management plan may not have been effectively implemented within clinical practice.

It is problematic to assert a conclusive statement as to the efficacy of the SCJ: Risk system in terms of preventing the probability of indentified behaviours occurring. If the interpretation of prevention is equated to the extinction (or absence) of identified behaviours, the system may be deemed to lack preventative utility. However, if the interpretation of prevention was defined as lengthening the time to the first incident, the system may be seen to yield preventative utility. This may be a relevant interpretation of findings related to the present investigation, as differences between the two time periods were observed (with the exception of incidents related to self-harm (at both time periods) and vulnerability (during the second time period).

The final example represents an individual judged to be high risk, but who did not subsequently manifest associated incidents. This could be interpreted as the application of the system resulting in a prediction error (false positive, see Chapter Five), or conversely, a behavioural management success. Correspondingly, this outcome may be interpreted as supportive of the preventative utility of the SCJ: Risk, but rejecting of the predictive utility of the system. Patients displaying this behavioural outcome (absence of any incident) may have had a well-constructed management plan that was successfully implemented by members of the clinical team. The present investigation did not include consideration of the prevalence of intra-institutional incidents prior to the assessment of patient risk using the SCJ: Risk. Future studies may include consideration of incidents for a time period prior to assessment of risk. In this way, comparisons may be drawn between the presence of behaviour prior to the construction and implementation of a risk management plan. If associated behaviours were present in the months preceding the assessment, but

absent (or occurring later) in the months following the assessment, and effect may be said to be observed.

An interaction between the correct identification of high risk patients and construction and implementation of risk management strategies may therefore be said to impact on the subsequent occurrence and time to first incident. No standardised framework for the construction of a risk management plan exists within the SCJ: Risk system, and the present study did not include an investigation of the *quality* of documented strategies aimed to reduce the presence of the predicted behaviour. The Risk Management Planning portion of the SCJ: Risk document (Appendix 1.1) details three headings with text boxes to document decisions. These sections correspond to: (i) An outline of management of current risk; (ii) monitoring (evidence of effective risk management) and (iii) monitoring contingency plan (if risk management is not effective). No further explanation or guidance is offered within the documentation as to what evidence should be recorded, that is, no standardised framework exists. As a result the amount of information recorded is dependent upon the judgement of clinical team members, and plans may vary in terms of rich, detailed plans, or poor plans of only a couple of sentences that fail to capture the complexities of each identified risk.

Future investigations may include comparisons between the quality of risk management plans and the manifestation of subsequent behaviours within patients identified as high risk. Factors indicative of a comprehensive plan in terms of the first criteria specified within the SCJ: Risk's management plan "outline of a management plan of current risk", may include the following: (i) A detailed

description of the likely scenario of future risk likely to be presented in the absence of a risk management plan (specifying the conditions and destabilisers that would be present to increase the manifestation of behaviour); (ii) an outline of goals in terms of targeted behaviours (for example, team members in terms of responsibilities to achieve the management of risk, clearly defined by professional grade); (iii) specification of appropriate interventions (for example attendance of an offending behaviour programme or individual intervention designed to reduce the associated behaviour). Comprehensive planning of issues relevant to "monitoring (evidence of effective risk management)", may be evaluated in terms of whether clinical teams specified how evidence of positive behavioural changes will be recognised. Detailed risk management strategies in terms of "monitoring contingency plan (if risk management is not effective)", may include evidence of documentation relating to how clinical team members would recognise and demonstrate no improvement or deterioration of a target risk behaviour (for example by listing behaviours that would be indicative of deterioration). Identification of deterioration may therefore flag the need for clinical teams to reassess the risk management strategy for that individual.

Examination of the construction of the risk management plan may therefore improve the quality of documentation, and would aid understanding between clinical team members. Logic infers that a comprehensive risk management plan (specifying the suggested factors above) would increase the probability that the plan would be effectively translated into clinical practice, with the result of reducing the occurrence of targeted behaviour, or lengthening the time to event. Once an acceptable minimum standard of documentation of risk management plans has been established, it would then be possible to ascertain if strategies were effectively implemented.

It is apparent that successful risk management is entirely dependent upon accurate risk assessments. A critical understanding of the interaction between individual and situational risk factors allows an informed judgement as to the potential (or likelihood and imminence) of an individual to manifest targeted behaviours. This judgement subsequently informs an intervention, or management strategy to prevent the behaviour from arising again in the future (Risk Management Authority, 2007). Clear justification of risk decisions made by the clinical team may be demonstrated by construction of a clear clinical formulation of risk.

Formulation demands the consideration of a number of relevant risk (destabilising) and protective factors. The process of formulation requires clinicians to consider the dynamic interplay of the individual's history (background), current situation (for example psychological vulnerabilities, and cognitive capacities) and the resources (internal and external) that may facilitate coping strategies, as well as consideration of motivation to engage in a therapeutic alliance to promote change. Factors or events that may trigger behaviours, or cognitive distortions contributing to the manifestation of incidents of behaviour are also evaluated during the process of formulation (Logan, 2008).

A causal link (or working hypothesis) to explain the manifestation and maintenance of behaviours may therefore be constructed. An evaluation of protective factors (that have the potential to counterbalance risk) are also considered. The working hypothesis may be seen as an attempt to link the identified risk factors with the management plan to target factors (via treatment, monitoring and supervision) to prevent the manifestation of behaviour.

Current thinking within the risk assessment and management field promotes the inclusion of formulation to the goal of preventing the occurrence, frequency and severity of intra-institutional behaviour and general recidivism (Logan (2007), Webster (2008), Douglas (2008), Hart (2009) and Douglas (2009)). SCJ: Risk documentation does not explicitly outline a process of formulation, and it is unlikely that all professional disciplines within the multidisciplinary team would be familiar with the approach. To reflect best practice, it would be beneficial to include guidelines within future versions of the SCJ: Risk illustrating how to construct a clinical formulation with the goal of preventing intra-institutional incidents to the benefit of the patient, staff and society.

6.9 Chapter Summary

Contemporary literature reflects thinking that there should be a move toward a prevention-based paradigm of risk management, and that an integrated model of risk assessment and management/treatment procedures, such as the SCJ: Risk will inform strategies for the prevention of undesired behaviours.

The identification of risk factors by means of application of valid and reliable structured professional guidelines have been recognised as essential to the subsequent management of risk (see Chapter Five). The Tilt high risk summary judgements of the SCJ: Risk facilitated decision-making and documentation of a statement as to the probability of high risk behaviour manifesting. Mulvey and Lidz (1995: cited in Douglas and Kropp, 2002) characterised such statements as "...concerns rather than fixed probability statements". Within the context of the present investigation, the manifestation of predicted behaviour was not a certainty.

The judgement of high risk status may therefore have prevented behaviour as a result of the implementation of management strategies. In this way, the identification of high risk patients may have served to reduce prediction estimates.

An empirical investigation was conducted to ascertain the preventative utility of the system of Structured Clinical Judgement: Risk. Survival analyses showed that patients identified as high risk of intra-institutional behaviours according to defined Tilt categories were more likely than their counterparts (not deemed as high risk) to manifest relevant behaviour. Patients judged to be high risk were also shown to display intra-institutional infractions earlier than patients not deemed high risk.

Chapter Seven

Conclusions and Suggestions for Future Research

7.1 Summary of Investigations and Suggestions for Future Research

The investigations reported in this thesis have presented, for the first time, how an adaptation of an existing validated system of structured professional judgement was implemented to meet the security requirements of a high-secure forensic hospital. Prior to the implementation of the SCJ: Risk system, there was an absence of a standardised framework for the discussion, documentation and communication of risk between various disciplines comprising multidisciplinary teams. The implementation of the system has therefore addressed these needs within the setting for which it was designed.

This thesis has examined the application and validation of a system of structured professional judgement within clinical practice. A series of investigations examined the clinical, predictive and preventative utility of the system. The research presented has contributed to the empirical evidence-base of risk assessments by validation of a novel risk assessment system designed to meet the security requirements of a high secure forensic hospital. In this way, the empirical investigations reported aimed to provide a union between research evidence and clinical practice.

The HCR-20 was originally developed as a scheme for assessing risk of violence. The system was informed by empirical literature, and the succinct operationally defined coding system facilitated clarity of decision-making. Another advantage of the instrument was its practical use, particularly due to its brevity and structure, allowing a vast range of evidence to be recorded within twenty items

relevant to past, present and future behaviour. Conversely, the SCJ: Risk was developed to fulfil the requirements of a security review as a scheme for assessing; (i) the risk of violence (immediate risk of harming others); (ii) the risk of suicide or self-harm; (iii) vulnerability to risk from others; (iv) the risk of escape; and (v) the risk of organised action in collaboration with others to subvert security and safety. A significant strength of the system was that the HCR-20 was chosen as the 'backbone' on which the additional risk factors were added. By utilising a similar framework, risk factors were operationalised in a way that would replicate the system on which it was based. The identification of risk behaviours in addition to violence resulted in the SCJ: Risk comprising a further ten static, and twenty dynamic items. In addition, the system necessitated a final risk judgement for each of the Tilt areas, and construction of risk management plans to be made. Each of the sections supplementary to the HCR-20 demanded additional resources of time and consideration from each clinical team member. The introduction of the system therefore reduced the brevity of the original documentation, and introduced the need to source further clinical information to evidence the additional risk factors. In comparison to the HCR-20, the construction of the risk factors within the SCJ: Risk was not reliably informed by a wealth of referenced empirical literature, but rather by the knowledge and experience of senior clinicians within one forensic institution.

It was therefore necessary to investigate the use of the system within clinical practice, and evaluate if the SCJ: Risk (as an adaptation of the HCR-20) achieved the objective of assisting clinical teams make and document risk-related decisions, to fulfil the security objectives defined by the Tilt review. To achieve this goal, it was critical to establish the processes necessary to successfully implement a system of

structured professional judgement, and investigate if the system was used by clinical teams as part of ongoing clinical practice (Chapter Three). It was identified that a suitable indicator of successful implementation would be demonstration of compliance in use. Overall, compliance in use of the system in clinical practice was shown to be present. The first investigation therefore demonstrated that the SCJ: Risk, as a structured professional guideline, was successfully implemented within a forensic psychiatric setting.

Interpretation and discussion of the findings highlighted that compliance may not necessarily be indicative of clinical team members acceptance of the system. Two interpretations for the successful implementation were proposed. Firstly, that an implementation deadline ensured that documentation was completed (and so the imposition of an operational directive ensured excellent compliance rates). The second interpretation proposed that, the system was beneficial to assisting clinical teams identify and manage high risk patients, and so was used within clinical practice (demonstrated by compliance of use). Compliance of use was therefore not a clear indicator of the acceptance of the system. Nonetheless, the investigation has merit in that the processes necessary to achieving the objective of use of the system within clinical practice were identified, and recommendations for future investigations to ensure continued fidelity of use of the system were presented. An important outcome of the present investigation was that the SCJ: Risk system has formed a significant component of the comprehensive extended assessment of all patients within all Directorates of a high-secure forensic hospital since December 2006.

Understanding the processes necessary to ensure compliance of use of the system of structured professional judgement within clinical practice was therefore critical to the subsequent academic evaluation of the utility of the SCJ: Risk system in addressing the security needs of a high secure forensic setting. The investigation presented in Chapter Four aimed to examine clinical team members use and perception of the SCJ: Risk. Two central questions were posed. Firstly, was the SCJ: Risk perceived as usable within clinical practice? Secondly, was the SCJ: Risk perceived as useful to clinical practice? The perceived usability and utility of the SCJ: Risk was ascertained by means of surveying clinical team members on a range of questions related to use of the system in clinical practice. Due to the increase in operational demands, it was anticipated that, despite the use of the system (demonstrated by excellent compliance rates), the introduction of the system may have been met with opposition. However, findings showed that the system was perceived as efficient and effective, and that user satisfaction was high. The practical use of the system overall was also reflected by respondent's positive ratings following the pilot and implementation phases.

The investigation confirmed that implementation of the system significantly impacted on existing clinical resources. However, the SCJ: Risk system was perceived to be beneficial in providing a framework for clinical team discussions relevant to risk, in providing an aid to communication of patient information between multidisciplinary team members, and ensuring the representation of the views of each professional grade. In this way, it was the perception of clinical team members that the SCJ: Risk system was useful and usable overall to the task of the risk assessment and management of patients according to the security needs of a high

secure forensic setting. Findings from the present investigation will assist in the maintenance and improvement of the perceived clinical usability and utility of the system within future clinical practice.

An important finding of the study of the utility and usability of the system was that clinical team members perceived the HCR-20 (Historical, Clinical, Risk) total subscales to have greater relevance overall than the additional subscale of the SCJ: Risk (Suicide, Vulnerability, Escape). This finding was seen to have a potentially critical impact on clinical service implications. It was suggested that the completion of SCJ: Risk documentation demanded greater time resources than the HCR-20, and that if the additional items of the SCJ: Risk were perceived to have less relevance, their inclusion in the system of structured clinical judgement may be problematic. It was therefore necessary to establish in an empirical fashion, the actual relevance of the original items of the HCR-20, and the additional items of the SCJ: Risk in facilitating the accurate identification (prediction) and management (prevention) of possible problematic intra-institutional behaviours within a high secure forensic setting, as defined by the Tilt security review.

The empirical investigation presented in Chapter Five therefore examined the utility of the SCJ: Risk in predicting intra-institutional behaviours relevant to the security needs of a high-secure hospital. The central research question posed was: Are SCJ: Risk subscales and individual risk factors that comprise subscales predictive of future intra-institutional behaviour? Base rates of intra-institutional incidents were established, and the occurrence of incidents relevant to violence and self-harm/suicide were frequent. Each of these behaviours had sufficient numbers of

recorded incidents from which the predictive accuracy of the SCJ: Risk could be ascertained. However, official reporting of incidents of behaviours relevant to the risk of escape, vulnerability or subversion were low. As the prevalence of these behaviours was low, prediction was problematic. The proportion of the sample that was identified (predicted) to manifest the corresponding behaviours of escape, vulnerability or subversion exceeded the proportion of the sample that actually presented the predicted behaviour. Margins of error were therefore apparent for individuals identified as at high risk from manifesting behaviours with a low base rate.

Receiver Operating Characteristic Analyses indicated variability in the predictive accuracy of the subscales and individual items within subscales comprising the HCR-20 and SCJ: Risk. The findings of the present investigation provide support for the existing empirical evidence base for the predictive ability of the Historical, Clinical, Risk and Total subscales of the HCR-20 in relation to violence. The predictive utility of SCJ: Risk subscales relevant to Vulnerability, Escape and Total Scores were also indicative of violence. This was an unexpected finding, as these subscales, and individual items comprising subscales were not originally designed to predict violent behaviour. Similarly, an unexpected finding was that subscales of the HCR-20 correctly identified behaviours for which it was not originally designed. The Risk and HCR-20 Total subscales were predictive of behaviour related to suicide/self-harm, and the Clinical scale was predictive of behaviour related to the subversion of security. Statistically robust relationships between SCJ: Risk subscale items and the corresponding behaviours of interest in relation to suicide/self were established. However, validity may be said to be

indiscriminate, as the additional subscales of the Historical (H11-20), Vulnerability and Escape items were also predictors of suicide/self-harm (as were SCJ: Risk Totals). The Escape subscale and SCJ: Risk Totals were also found to be robust predictors of the subversion of security.

The present investigation provides empirical support for the application of subscale items of the HCR-20 within a high-secure forensic hospital in relation to the prediction of violence. In addition, empirical support was also demonstrated for the application of the Suicide/Self-Harm subscale of the SCJ: Risk and the prediction of corresponding behaviour. However, due to the problems of base rates (above), the same relationship between subscale items and behaviours were not found for incidents related to vulnerability or escape. Significant differences were therefore found between the predictive utility of *subscales* of the HCR-20 and SCJ: Risk and the presence of intra-institutional behaviour, and so the null hypothesis was rejected.

The investigation also revealed variability in the predictive accuracy of individual risk items comprising the subscales of the HCR-20 and SCJ: Risk. A greater number of Historical items from the HCR-20 were predictive of any violence when compared to the additional ten historical factors of the SCJ: Risk. Statistically significant relationships were established for individual risk factors of the SCJ: Risk designed to be indicative of self-harming/suicidal behaviour, showing the predictive utility of these items. However, robust relationships were not shown for the majority of the remaining factors of the SCJ: Risk in relation to escape, vulnerability or subversion (for the reasons described above). The investigation demonstrated that there were significant differences between the predictive utility of the *individual risk*

factors of the HCR-20 and SCJ: Risk and the presence of intra-institutional behaviour, and so, the null hypothesis was rejected.

Findings indicate that the perceived relevance (Chapter Four) and predictive utility (Chapter Five) of the HCR-20, were more robust than those of the SCJ: Risk. The subscale items, and individual risk items comprising the subscales of the HCR-20 were perceived (by clinical team members) to have greater relevance, and were empirically established to have greater predictive utility, compared to the SCJ: Risk. These findings may be interpreted as indicative of the SCJ: Risk system lacking both relevance, and ability to correctly identify corresponding behaviours relevant to escape, vulnerability and subversion (compared to behaviours relevant to violence and self-harm). This interpretation has significant clinical service implications. The findings lead to the question: Do the additional items of the SCJ: Risk (in response to the requirements of the Tilt review) actually add anything to the original HCR-20 risk assessment? Findings illustrate, that the predictive utility of the HCR-20 in predicting the intra-institutional behaviour for which it was designed (violence) was replicated within a high-secure service. However, the predictive utility of the SCJ: Risk in predicting the intra-institutional behaviour for the majority of incidents for which it was designed (to fulfil the security objectives defined by the Tilt review) in relation to escape, vulnerability and subversion was not demonstrated.

However, these findings relevant to the predictive utility of the HCR-20 and SCJ: Risk systems have their limitations. Results and interpretations were based on the summation of actuarial scores (a practice discouraged within clinical practice). During a recent keynote speech, Douglas (2009), acknowledged that currently,

"...empirical evaluations of structured professional judgement approaches are rooted in a nomothetic research base" and asserted that there is a need for the 'next generation' of (violence) risk assessment and management to accomplish: "...Operationalising, quantifying, and measuring the ideographic relevance of nomothetically-supported risk factors". For the purpose of academic evaluation, future studies may continue to adopt a nomothetic approach, whereby cohorts of individuals are studied, of which one individual may be seen as representing a specific population of interest (e.g. all individuals identified as high risk). This tendency to generalise will therefore continue to be useful to comparing populations and explaining the processes and outcomes of risk assessment and management within forensic settings at a group level. However, it will be necessary for future research to go beyond generalised understandings of behaviours for which norms have been established. A subjective, qualitative understanding of each individual, that distinguishes him or her apart from other individuals, must therefore be developed and integrated within the identification and management of risk. The task of the clinical team within future forensic practice, and the task of future empirical evaluations will therefore be to identify the subjective relevance of risk factors at an individual level.

The findings of the study investigating the predictive utility of the system of structured professional judgement did not make a distinction between the scores of patients identified by clinical team members as high risk (versus patients not identified as high risk), and the subsequent manifestation of intra-institutional behaviour. One interpretation of the findings above was that the presence of risk factors culminated in the clinical decision to identify a patient as high risk for the

corresponding behaviour. The documentation and implementation of associated risk management plans may therefore be seen as instrumental to the reduction or amelioration of corresponding behaviours.

This interpretation formed the basis for the final investigation, by means of study of the preventative utility of the system (Chapter Six). Two research questions were posed. The first question investigated: Do final Tilt summary judgements, and the identification of patients as high risk impact on the presence of related intra-institutional behaviour (as defined by any differences between the two time periods investigated)? It was anticipated that the identification of a patient as high risk, and the construction of risk management plans would minimise the presence of the predicted intra-institutional infraction. In this way, the identification and management of high risk individuals would reduce prediction estimates. However, findings indicated that the presence of specific behaviours of interest were more prevalent within the group of patients deemed high risk of behaviours relevant to any intra-institutional infraction, violence and self-harm. Significant differences between the occurrences of intra-institutional infraction between patients identified as high risk, compared to patients not identified as high risk within each Tilt category of risk were therefore found, so the null hypothesis was rejected.

The second of the two research questions investigated: Do final Tilt summary judgements, and the identification of patients as high-risk impact on the time it takes for intra-institutional behaviour to occur (as defined by any differences between the two time periods investigated)? It was anticipated that the identification of high risk individuals would lengthen the time to the first recorded incident relevant to the Tilt

requirements. However, Kaplin-Mayer survival analyses showed the time to manifestation of intra-institutional behaviour for patients identified as high risk was shorter when compared to patients with the absence of this risk status. Significant differences between the time to the first incident of intra-institutional infraction between patients identified as high risk, compared to patients not deemed as high risk within each Tilt category of risk were observed, and so the null hypothesis was rejected.

The latter study allowed the prospective examination of the relationship between the identification of risk status and behavioural presentation. Patients identified as high-risk were found to display a higher prevalence and earlier incidence of relevant intra-institutional behaviour. The presence of relevant intra-institutional behaviours over a twelve-month period following the implementation of the SCJ: Risk was measured. Future investigations may benefit from a longer follow-up period. A more prolonged duration of study may allow time for an individual to respond to risk management plans and associated interventions. Multiple time-point estimates would also allow any relationships between risk status and behaviour to be evaluated with a greater degree of detail than was adopted during the present investigation. The influence of dynamic risk factors and repeated involvement in intra-institutional behaviour could therefore be ascertained by adopting such a methodology.

Overall, the findings suggest that the SCJ: Risk as a structured professional guideline can facilitate the identification of high risk offenders. The thesis acknowledged that the identification of dynamic risk state factors has the potential to

help reduce undesirable behaviours by application of corresponding targeted risk management strategies. However, the thesis did not include investigation of the nature, frequency or intensity of treatment interventions or management strategies applied to individuals in an attempt to reduce or ameliorate the identified risk. It would be of interest for future studies to investigate the efficacy of targeted interventions in reducing specific risk.

The present investigation did not include an evaluation of the risk management strategies applied to patients not deemed high risk. Additional risk management plans were not constructed for this patient population during normal completion of the SCJ: Risk. This is not to say however, that this patient group had a total absence of risk management plan. A risk management plan may exist within routine clinical practice, independent of the SCJ: Risk. Indeed, such a patient group may be identified as not presenting as high risk due to the successful implementation of a risk management plan and appropriate targeted intervention(s) that pre-dated the implementation of the SCJ: Risk. Any existing plans may therefore have been instrumental in the management of the risk of intra-institutional infractions.

7.2 Implications for Forensic Clinical Services and Recommendations for Future Use of the SCJ: Risk

The purpose of the development and implementation of the SCJ: Risk was to document risk related decisions within a high secure forensic setting, according to the security objectives defined by the Tilt review. The Tilt review necessitated that a procedure for the identification of high risk patients be implemented within each high secure forensic hospital in the UK (Fallon *et al*, 1999). In this regard, findings

of the present thesis illustrate the efficacy of the SCJ: Risk in identifying high risk patients in relation to the five Tilt factors. The SCJ: Risk system may therefore be seen to fulfil the security requirements of the Tilt review, as it facilitated the correct identification of patients subsequently manifesting relevant behaviours.

The review also specified that, following the identification of patients as high risk, appropriate provisions should be made to increase the procedural security arrangements for such a population (Fallon *et al*, 1999). Completion of SCJ: Risk documentation provided an opportunity for clinical teams to construct additional risk management plans for patients identified as high risk. However, the findings of the current investigation illustrate that the efficiency of the SCJ: Risk in documenting the processes necessary to increase the procedural security arrangements within this population may be questionable (as identified high risk behaviour was subsequently displayed). In this way, the SCJ: Risk system may not be seen to adequately fulfil the security requirements of the Tilt review.

Collectively, the findings presented within this thesis calls into question the appropriateness of use of a risk assessment system (the SCJ: Risk) that has been shown to yield less perceived relevance, predictive and preventative utility than the original system on which it was based (the HCR-20). In evaluating this assertion, it is important to consider the question: Were the original five areas of risk identified within the Tilt review of security *actually* relevant to the needs of a high secure forensic setting? The findings illustrate that only two of the five identified areas were shown to have prevalence of a degree to allow statistically robust relationships of the predictive and preventative utility of the system to be established, namely; (i)

the immediate risk of harming others (violence) and; (ii) the risk of suicide or self-harm. The investigation has shown that behaviours relevant to the three remaining Tilt factors; (iii) vulnerability to risk from others, (iv) the risk of escape and (v) subversion, occurred relatively infrequently within a high secure setting.

These findings have important implications for forensic clinical services, particularly within institutions in which the documentation of high risk patients, according to the objectives defined by the Tilt review are an auditable requirement. The implementation of the SCJ: Risk was found to significantly impact on existing clinical resources. The reduced brevity of the original documentation resulted in an increased time of completion of the SCJ: Risk (when compared to the HCR-20). Findings illustrate that clinical teams are required to consider and document the relevance of fifteen individual dynamic risk factors (5 Vulnerability, 5 Escape, 5 Subversion), and ten individual static risk factors (10 Historical), developed to be indicative of relatively infrequent associated behaviours within a high secure setting.

On the basis of these findings, it is questionable as to whether it is an appropriate use of clinical resources to devote time to the discussion, identification and documentation of the risk of behaviours for which recorded incidents are infrequent (relative to violence and self-harm). Nevertheless, it remains a requirement of high-secure forensic hospitals to make and document risk related decisions relevant to the five Tilt areas. It is argued (above) that the additional items of the SCJ: Risk do not 'add value' to the original HCR-20 documentation. Findings have shown the perceived and actual utility of the HCR-20 within a high secure setting. The original subscales were shown to have relevance to the identification of

violence (all subscales), suicide (Risk and HCR-20 Total subscales) and subversion (Clinical subscale). By comparison, only the Suicide subscale of the SCJ: Risk was a robust indicator of corresponding behaviours.

The results of the empirical investigations within this thesis suggest that, when investigated in an empirical manner, the utility of the individual risk factors designed to be associated with behaviours relevant to vulnerability, escape and subversion are limited. The findings clearly illustrate that the extended risk assessment of the SCJ: Risk adds very little to the parental version of the HCR-20.

Supported by evidence presented within this thesis, it is recommended that the organisation revises documentation in attempt to increase efficacy of future use within forensic clinical practice. Two recommendations are made. Either, the organisation reverts back to the HCR-20, (with the addition of Tilt High Risk Summary Sheet, and associated Risk Management Plans) or that the SCJ: Risk undergoes a significant revision. In a revision of the SCJ: Risk, an edited form of the document may be developed, piloted and evaluated. The twenty additional items of the SCJ: Risk shown to yield low perceived, predictive and preventative utility ought to be removed from a revised version (5 Vulnerability, 5 Escape and 10 Historical). The individual factors comprising the Suicide/Self-harm subscale may remain, due to their utility in the identification of high risk patients. To fulfil the security objectives of the Tilt review, all other sections of the SCJ: Risk may remain.

In effect, the remaining document would comprise the original risk factors of the HCR-20, plus the Suicide/Subversion subscale, Risk Scenario Planning Section,

High Risk Summary Sheet, and associated Risk Management Plans. Future evaluations would include the perceived usability and utility, predictive and preventative utility. Comparisons between evaluations of the original SCJ: Risk and revised version could be drawn, and conclusions as to efficacy of use within clinical practice stated. It is suggested that these steps will re-instate a greater degree of brevity, increase the perceived relevance (usability and utility) and actual predictive and preventative utility of the revised system. In this way, the revised SCJ: Risk system may continue to provide a structured professional judgement framework for clinical team discussions relevant to the assessment and management of risk within high secure forensic services.

7.2 Conclusions

The investigations reported in this thesis examined the application of a risk assessment system of structured professional judgement to meet the security needs of a high secure forensic psychiatric service. The usability and operational viability of the SCJ: Risk was established. The system was implemented successfully, and comprised a regular process of routine clinical care within the framework of clinical governance, multidisciplinary working and evidence-based practice. Receiver Operator Characteristic analyses revealed variability in the predictive accuracy of individual risk factors and subscale scores. Statistically significant relationships between the risk measure and behaviours of interest were robust for behaviours with a high prevalence. The ability of the system to provide a framework to facilitate the identification of patients as high risk of specific behaviours was demonstrated. Survival Analyses showed the identification of high risk behaviours was not observed to yield preventative utility. The findings indicate the SCJ: Risk as a

framework of decision making facilitated the identification of risk, but not the management of behaviours identified as high risk. Specifically the predictive utility of the system was found to be more robust than the preventative utility of the system within forensic psychiatric practice. Overall, the utility of the original system of structured professional judgement (the HCR-20) was shown be more robust than the SCJ: Risk. The findings presented have important implications for the future use of the system within forensic clinical services to achieve the overall goals of clarity of risk communication, identification and management of high risk patients.

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Appendices

Appendix One

Structured Clinical Judgement: Risk

Multidisciplinary Assessment of Risk

A System for Structuring Clinical Judgements of Risk Related to High Security Hospital Needs

SCJ: Risk

Clare Richardson and Todd Hogue
Rampton Hospital, Nottinghamshire Healthcare NHS Trust

Please do not use or copy this instrument without first contacting the authors

The following system is based on the use of structured clinical judgement for making risk decisions. The format of structuring judgements is based on, and includes within it, the HCR-20 (Webster, Douglas, Eaves & Hart, 1997) tool for assessing risk. Clinicians using this system of structuring clinical judgements of risk should be familiar with the literature on clinical risk prediction, have read the HCR-20 manual and had specific training on applying this system within a forensic institutional context. Users are directed to the following publications for further clarification or explication:

Webster, C.D., Eaves, D., Douglas, K.S., and Wintrup, A. (1995). The HCR-20: the Assessment of Dangerousness and Risk. *Vancouver, Canada: Simon Fraser University and British Colombia Forensic Psychiatric Services Commission.*

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NAME:

HOSPITAL NUMBER:

CONSULTANT:

WARD:

MHA STATUS:

DATE:

SUMMARY OF CASE INCLUDING INDEX OFFENCE:

HISTORICAL ITEMS

H1 **PREVIOUS VIOLENCE:** For a definition of violence please refer to HCR-20 guidance notes. The scoring scheme for this item is intended to capture the density of previous violence. Therefore the number of past violent acts is combined with their severity to differentiate between a YES/MAYBE score. A **NO** would indicate no previous acts of violence. A **MAYBE** score would be given if there were one or two acts of possible/less serious violence. Moderately severe violence would include slapping, pushing, and other behaviours unlikely to cause serious or permanent injury to victims. A **YES** score would be given for three or more acts of serious previous violence, or any acts of severe violence. Acts of severe violence include, but is not limited to, those that cause death or serious injury to or maiming of the victim. All violence up to and including the time of the assessment is included as "previous violence." This would include the index offence, violence during incarceration or hospitalisation, or violence directed at the assessor during interview.

H2 **YOUNG AGE AT FIRST VIOLENT INCIDENT:** Age is established by considering the date of the first known violent incident, which is not necessarily the index offence. A **NO** score is allotted if there are no known acts of violence, or the patient was 40 years and older at first known violent act. A **MAYBE** score would be given if the patient was between 20 and 39 years of age. A **YES** score is allotted if the patient was under 20 years at the first known violent act.

H3 **RELATIONSHIP INSTABILITY:** This refers only to "romantic," intimate, or non-platonic partnerships and does not include relationships with friends or family. This item is geared toward whether the individual is able to form and maintain long-term, stable relationships given the opportunity. "Instability" would include many short-term relationships; absence of any relationships or presence of conflict within a long-term relationship. A **NO** score would indicate a relatively stable and conflict-free relationship pattern, a **MAYBE** possible/less serious unstable and/or conflictual relationship pattern, and a **YES** score where there is evidence of definite/serious unstable and/or conflictual relationship patterns or the absence of a relationship.

H4 **EMPLOYMENT PROBLEMS:** A **NO** should be given if there is no evidence of employment problems. A **MAYBE** score is given for possible/less serious employment problems. A **YES** score should be coded if the individual has refused to seek legitimate employment, has a history of many short-term jobs, or of frequently being sacked or quitting. A reduction from YES to MAYBE may be warranted if economic, physical, or mental problems preclude employment but caution is recommended as the item focuses on employment problems rather than employability. Institutional work programmes may be considered.

H5 **SUBSTANCE USE PROBLEMS:** Included in this item is the misuse of prescription drugs and glue or solvents. Whilst psychiatric diagnosis of substance abuse ought to be taken seriously their mere presence does not warrant a yes score without corroboration. Score **NO** for no substance use problems. A **MAYBE** score should be given for possible/less serious substance use problems. A **YES** score applies to where substance use problems cause impairment of functioning in areas such as health, employment, recreation or interpersonal relationships that are attributable to substances. Examples would include, (but are not limited to): being late for work; irate with others; being severely hung over; an inability to concentrate whilst working or driving or doing so whilst under the influence; substance related arrests; having difficulties within interpersonal relationships; and denying problems despite strong evidence to the contrary.

H6 **MAJOR MENTAL ILLNESS:** A diagnosis of major mental illness should conform to an official nosological system such as DSM-IV or ICD-10. The item is scored on the basis of past history and is unaffected by whether the disorder is currently active or in remission. The item applies to illnesses involving disturbances of thought and affect (e.g., psychotic illnesses, manic mood, organic illnesses, etc). Less serious mental illnesses, such as anxiety disorders, somatoform disorders, paraphilias or sleep disorders should be coded **NO.** A **MAYBE** score is appropriate if the evidence is equivocal (e.g., course or severity is unclear). A **YES** score would be given when the evidence of major mental illness is unequivocal.

H7 **PSYCHOPATHY:** It must be stressed that this rating is to be made on the basis of an informed and trained psychopathy assessment using the PCL-R or PCL:SV. The item is not to be used until such a rating is available. If no score is available, please leave the H7 rating blank until a score is obtained. Appropriate codings are as follows: **NO** for a score of under 20 on the PCL-R, or under 13 on the PCL:SV; **MAYBE** for a score between 20 and 29 on the PCL-R, or 13-17 on the PCL:SV; **YES** for a score between 30-40 on the PCL-R, or 18-24 on the PCL:SV.

H8 **EARLY MALADJUSTMENT:** Violence can be predicted through childhood *victimisation* as well as through being a childhood *victimiser* or delinquent. No maladjustment is coded **NO.** A **MAYBE** score should be given if there is evidence of possible/less serious maladjustment. A **YES** score should be given if maladjustment has occurred in at least two of the three domains of home, school, and community. If the maladjustment was very severe in one domain, (e.g., severe and prolonged childhood abuse) then a yes score is also justified.

H9 **PERSONALITY DISORDER:** A diagnosis of personality disorder should conform to an official nosological system such as DSM-IV or ICD-10; this is scored on the basis of past history and is unaffected by whether the disorder is currently active or in remission. A **NO** score is given to indicate no formal diagnosis of personality disorder. A **MAYBE** score should be given if there is a possible/less serious diagnosis of personality disorder, including personality disorder traits. A **YES** score would be given when there is definite evidence of personality disorder.

H10 **PRIOR SUPERVISION FAILURE:** Failures during any institutional or community placement are relevant here. A **NO** is given if the individual has never had a period of institutional, or community supervision or if there are no prior supervision failures. A **MAYBE** score is given for less serious failures such as returning late when released on a pass, causing a disturbance, failing to take medication as prescribed, or using alcohol or drugs whilst prohibited. A **YES** score is given if the act resulted in (re-) apprehension, (re-) institutionalisation by a correctional or mental health agency, escape from a correctional facility, elopement from a maximum secure hospital, abscondance whilst on an escorted official visit (e.g., funeral), re-offence during probation, revocation of parole, or failure to attend for psychiatric treatment as ordered by a court or tribunal.

The above definitions are abbreviated versions of the HCR-20. Users should refer to the HCR-20 manual and companion guide.

HC-1

HISTORICAL CODINGS

H1 Previous violence plus institutional violence	Evidence:
NO ☐ MAYBE ☐ YES ☐	

H2 Young age at first violent incident	Evidence:
NO ☐ MAYBE ☐ YES ☐	

H3 Relationship instability	Evidence:
NO ☐ MAYBE ☐ YES ☐	

H4 Employment problems	Evidence:
NO ☐ MAYBE ☐ YES ☐	

H5 Substance use problems	Evidence:
NO ☐ MAYBE ☐ YES ☐	

H6 Major mental disorder or illness	Evidence:
NO ☐ MAYBE ☐ YES ☐	

H7 Psychopathy	Evidence:
NO ☐ MAYBE ☐ YES ☐	

H8 Early maladjustment	Evidence:
NO ☐ MAYBE ☐ YES ☐	

H9 Personality Disorder	Evidence:
NO ☐ MAYBE ☐ YES ☐	

H10 Prior supervision failure plus escape and abscondance	Evidence:
NO ☐ MAYBE ☐ YES ☐	

Patient Name:

Hospital Number:

HISTORICAL ITEMS

H11 **CHILD PROTECTION: NO** - no known evidence indicating harmful behaviour proven to be distressing to children. **MAYBE** - if there is no consensus or unsubstantiated allegations or evidence requiring investigation. **YES** - clear evidence of any previous harmful behaviour proven to be distressing to children. The individual may have been considered to be a Schedule 1 Offender or is considered a Risk to Children (convicted under the 1983 Schedule 1 Offences Act (Policy 13)). Any specific and additional reasons why this individual should be considered a particular risk to children.
Other considerations if forming a yes/maybe response: indecent exposure, association with paedophile ring, inappropriate interest in children i.e. collecting printed or internet material or has been sexually inappropriate or disinhibited in behaviour in connection with mental state.

H12 **SEX OFFENDING: NO** – there is no known evidence to suggest that the patient may have sexually offended. **MAYBE** – there is unsubstantiated evidence/information or they are under investigation for sex offending. **YES** there is evidence/information that suggests that the patient has sexually offended against another person, has been convicted of a sexual offence, or was sexually motivated in other offending. Evidence of sexually inappropriate behaviours examples include grooming, or creating opportunities to gain access to potential victims. Sexual compulsivity - sexually deviant and/or compulsive behaviour. Evidence of victimisation i.e., stalking. History of behaviour relating to deviation – excessive masturbation, frequent use of prostitutes, indecent exposure, promiscuity or one night stands. Frequent use of pornography or sexual fantasies, accumulation of a large collection of pornography material written or from internet. Evidence of a sexual offending cycle. Evidence of connection to vice rings and pimping.

H13 **SUICIDE ATTEMPT: NO** – no known evidence of suicidal attempts. **MAYBE** – this could include self-statements with no corroborative evidence i.e. overdose at home, no intervention by any agency, no witnesses. **YES** – there is evidence/information that suggests a past history of suicidal attempts. This may include increasing serious self-harming behaviour that may have been life threatening.
Other Considerations: Increasing serious self-harm incidents. Connections of behaviour to specific events, anniversaries or bereavement or loss. Evidence of intellectual deficit, expression of ideation regarding suicide. Has made plans in the past. Poor physical and mental health i.e. physical disability, chronic physical illness, pre-senile dementia, depression, anxiety, sleep disorder, especially recovering from severe depression. Expression of unworthiness, hopelessness, helplessness and despair.

H14 **SELF-HARM: NO** – no known attempts of self-harm. **MAYBE** – there are concerns but not substantiated evidence. **YES** – there is evidence/information suggesting a past history of self-harm that would not be considered a suicide attempt..
Other Considerations: Self-harm may include superficial cutting, swallowing, burning or inserting foreign objects into the body in some cases this may be enforced starvation or hunger strikes.

H15 **ARSON: NO** – no known evidence of arson. **MAYBE** – no substantiated evidence available or is under investigation regarding an arson act, has expressed an interest in fire setting or has verbalised fantasies of fire setting. **YES** - if there is information available that suggests past history or conviction for arson.

H16 **HOSTAGE TAKING:** Has the person detained someone against their will in an attempt to get something they want? **NO** – no known evidence of hostage taking. **MAYBE** – unsubstantiated evidence or is being investigated for possible hostage taking, has expressed a wish to or threatened to take hostages but not done so. **YES** – there is evidence/information that there has been hostage taking activity which may include conviction of holding against will.

H17 **WEAPONS: NO** – no known use of weapons. **MAYBE** – patient has fantasies re: weapons or has threatened to use weapons. **YES** – there is instrumental use of an object through threat of violence or (instrumentally) there is evidence/information that weapons have been used, carried, made and concealed, will readily pick up weapons, but as yet has not used them.
Other Consideration: Weapons include anything that may be used to threaten or harm e.g. pen, bottle, chair.

H18 **CONCERTED INDISCIPLINE: NO** – no known evidence. **MAYBE** – makes threats to disrupt or there is a possibility that the patient colludes with others to disrupt. **YES** – evidence/information that the patient has been involved or planned indiscipline in any establishment which may include rioting, roof top demonstration, key compromise, barricading, general disruption etc.

H19 **HIGH PUBLIC OR POLITICAL INTEREST: NO** – no press/public interest **MAYBE** –some/localised press interest. **YES** – high national press/public interest of some political concern likely.

H20 **ESCAPE/ABSCOND HISTORY: NO** – no evidence to escape/abscond. **MAYBE** – some evidence that the patient has absconded/planned/intent or suspicion to escape/abscond. **YES** – clear evidence that the patient has previously escaped or absconded from custody or any institution in a correctional or mental health facility.

HISTORICAL CODINGS

H11: Child Protection	Evidence:
NO ☐ MAYBE ☐ YES ☐	

H12: Sex offending	Evidence:
NO ☐ MAYBE ☐ YES ☐	

H13: Suicide	Evidence:
NO ☐ MAYBE ☐ YES ☐	

H14: Self-harm	Evidence:
NO ☐ MAYBE ☐ YES ☐	

H15: Arson	Evidence:
NO ☐ MAYBE ☐ YES ☐	

H16: Hostage taking	Evidence:
NO ☐ MAYBE ☐ YES ☐	

H17: Weapons	Evidence:
NO ☐ MAYBE ☐ YES ☐	

H18: Concerted Indiscipline	Evidence:
NO ☐ MAYBE ☐ YES ☐	

H19: High Public or Political Interest	Evidence:
NO ☐ MAYBE ☐ YES ☐	

H20: Escape/Abscond History	Evidence:
NO ☐ MAYBE ☐ YES ☐	

Patient Name:

Hospital Number:

CLINICAL RISK FACTORS

The following items are relevant to the previous three months and must be scored with that in mind.

Prior to completing the following risk judgements please give a brief description of the current care environment and care programme, including treatment programmes/medication regimes.

C1 **LACK OF INSIGHT:** This item refers to the degree to which the patient fails to acknowledge and comprehend his or her mental disorder and its effect on others. This lack of insight can be expressed in many ways. Some patients may clearly have evident signs of a major mental illness but are unable, or unwilling, to acknowledge that they may act in a violent manner without regular use of prescribed medication. Individuals may have difficulty realizing the importance that a well-structured support group may have in averting violence. Yet others may have little insight into their, generally, high levels of anger and dangerousness. A score of **NO** should be given for no lack of insight; **MAYBE** for a possible/less serious lack of insight and **YES** should be given for definite/serious lack of insight.

C2 **NEGATIVE ATTITUDES:** This item refers to recent evidence of pro-criminal and antisocial attitudes connected to a higher propensity for violence. Most people could be said to have negative attitudes of some kind but this item relates to entrenched antisocial and negative attitudes and beliefs. Sadistic, homicidal, or paranoid attitudes which *do not* stem from mental illness may be counted under this item as can evidence of remorselessness, a current unwillingness to abide by rules and regulations, evidence of splitting behaviour, boundary pushing, callousness and lack of empathy. A **NO** score is given for no negative attitudes; **MAYBE** for possible/less serious negative attitudes and **YES** for definite evidence of negative attitudes.

C3 **ACTIVE SYMPTOMS OF MAJOR MENTAL ILLNESS:** Assessors should follow an official nosological system such as the DSM-IV or ICD-10 for definitions of psychotic symptoms.
This item should be coded: **NO** if there are no active symptoms of major mental illness; **MAYBE** for possible/less serious active symptoms of major mental illness; **YES** should be given for definite/serious active symptoms of major mental illness.

C4 **IMPULSIVITY:** Impulsivity refers to dramatic day-to-day, hour-to-hour fluctuations in mood or presentation. It is an inability to remain composed and directed when under the pressure to act. Impulsive people are quick to (over-) react to real, or imagined slights, insults and disappointments, when they do their action may appear to be exaggerated or overdone. The item, therefore, measures behavioural and affective instability and should be scored **NO** for no evidence of impulsivity, **MAYBE** for possible/less serious impulsivity and **YES** for evidence of impulsivity.

C5 **UNRESPONSIVE TO TREATMENT:** This item refers to any treatment designed to ameliorate criminal, psychiatric, psychological, social, or vocational problems. It is vital to know if the individual has sought help and accepted it, rejected it out of hand, or agreed to it merely to speed their transfer or "look good" to a court, Mental Health Review Tribunal or other authority. A **NO** score is given if the patient is responsive to treatment. A **MAYBE** score is given if there is possible/less serious unresponsiveness to treatment. A **YES** score is given to individuals who respond poorly, or not at all, to treatment attempts. Patients may also lack motivation to begin or continue with treatment or merely pay lip service to treatment or complete treatment but fail to benefit from it.

The above definitions are abbreviated versions of the HCR-20. Users should refer to the HCR-20 manual and companion guide.

CR-1

CLINICAL CODINGS

Clinical factors influencing current risk

Prior to completing the following risk judgements please give a brief description of the current care environment and care programme, including treatment programmes/medication regimes.

Current care environment and care-programme:

C1: Lack of insight	NO ☐	MAYBE ☐	YES ☐
Evidence:			

C2: Negative attitudes	NO ☐	MAYBE ☐	YES ☐
Evidence:			

C3: Active symptoms of Major Mental Illness	NO ☐	MAYBE ☐	YES ☐
Evidence:			

C4: Impulsivity	NO ☐	MAYBE ☐	YES ☐
Evidence:			

C5: Unresponsive to treatment plus medication, psychology, day care, relate to hospital	NO ☐	MAYBE ☐	YES ☐
Evidence:			

Patient Name:

Hospital Number:

SUICIDE ATTEMPT OR SELF-HARM ITEMS

The following items are relevant to the previous three months and must be scored with that in mind.

S1 **SUICIDAL IDEATION:** Suicidal ideation can be expressed verbally or non-verbally as would be the case with individuals who ruminate extensively. A **NO** score should be given when there is no evidence of suicidal ideation. A **MAYBE** score may be allocated where there is unsubstantiated evidence of suicidal ideation. Maybe scores should also be treated seriously and indicate that close monitoring of the patient should take place until any concerns are considered unjustified by the clinical team. A **YES** score should be allocated if suicidal ideation is present, and should warrant serious concern and monitoring.

S2 **HOPELESSNESS:** This item is designed to elucidate depressive symptomatology associated with the possibility of future suicide or self-harming episodes. A score of **NO** would indicate no evidence of hopelessness. A **MAYBE** would be given for possible/less serious evidence of hopelessness. Individuals who score **YES** on this item will increasingly seek support from staff or peers, frequently be observed to be tearful or, have dulled affect and attempt to isolate themselves. Feelings of despair and an inability to see a way out of their current situation would also score highly.

S3 **FREQUENCY:** This item is present to assess whether or not there is an escalation or persistently high rate of behaviours associated with self-harm, which would be indicative of the patient becoming increasingly distressed, or maintaining a high level of distressed behaviour, to the point where he/she is compromising their physical well-being. A **NO** indicates no self harming behaviours. A **MAYBE** score would indicate less frequent or less serious increase in behaviour. A **YES** score would be given to demonstrate a definite increase in frequency or maintenance of high-frequency behaviour (e.g., daily).

S4 **SEVERITY:** Individuals who score **NO** on this item indicate no self harming behaviours A **MAYBE** score would be given for possible/less serious self-injurious behaviour such as superficial scratching or burning self with a cigarette.
Individuals who score **YES** on this item will have harmed themselves to the extent that their life could have been endangered should they have not received attention, or there are regular episodes of (attempted) self-injurious behaviour.

S5 **PLANNING:** This item is included to elucidate any attempts at preparation that may have been made to facilitate self-harm or suicide. It could involve the tearing of sheets in order to make a ligature, storing or concealing of any object that could be used to self-injure, the writing of suicide notes or any other indication that preparations are being put in place. The absence of any of the above would warrant a **NO** score. A **MAYBE** score would be given for a clinical judgement that suicide or self-harm preparations were taking place but there was uncorroborated evidence to support this, and a **YES** score for any evidence of planning.

SR-1

SUICIDE OR SELF-HARM CODINGS

S1: Suicidal Ideation	NO ☐	MAYBE ☐	YES ☐
Evidence:			

S2: Hopelessness	NO ☐	MAYBE ☐	YES ☐
Evidence:			

S3: Frequency	NO ☐	MAYBE ☐	YES ☐
Evidence:			

S4: Severity	NO ☐	MAYBE ☐	YES ☐
Evidence:			

S5: Planning	NO ☐	MAYBE ☐	YES ☐
Evidence:			

Include any other information below:

Patient Name:

Hospital Number:

VULNERABILITY ITEMS

The following items are relevant to the previous three months and must be scored with that in mind.

This section serves to elucidate risk factors that relate to the likelihood of the individual being victimised, taken advantage of or exploited by others.

V1 **MENTAL STATE:** Vulnerability in this area may appertain to any mental state symptoms which make the individual more vulnerable to victimisation from others. These may include, episodes of psychosis including; paranoia/persecutory ideation where the individual feels he/she is being conspired against, believes that someone wants to harm or kill them, or has feelings that they are being followed or watched. Command hallucinations may also submit the patient to attack by others. Symptoms of clinical depression may also be considered under this item, feelings of worthlessness or inappropriate guilt (which may be delusional) anxiety, helplessness or hopelessness. A **NO** score should be given if there is no evidence that this applies. A **MAYBE** score should be allotted if there is some evidence that the above applies. A **YES** score should be given where there is clear evidence that the above applies to the patient's current mental state.

V2 **PHYSICAL/PHYSIOLOGICAL PROBLEMS:** Physical problems may be used by others to separate the individual out for bullying. Examples might include obesity, small stature, an inability to effectively communicate, or anything that might differentiate the patient from the "norm". Physiological problems, for example endocrine disorders or neurological features including mental impairment, stroke or other organic brain dysfunction may be included. **NO** should be scored in the absence of any evidence of the above, a **MAYBE** score should be given if some evidence of the above applies and a **YES** if clear evidence exists.

V3 **PSYCHOLOGICAL PROBLEMS:** Consider any pervasive pattern of psychological symptoms. These may include, characteristics of a disorder of personality, unstable emotional control or extremes in emotional behaviour, excessive passivity, expression of thoughts, emotions or behaviours that are outside normal cultural and social constraint. Other characteristics may include low self esteem, poor social skills such as lack of assertiveness, self-image sensitivity; oversensitivity to comments from others relating to physical, social or psychological self. He/she may be overdisclosing, revealing intimate or highly personal information inappropriately to others. Is the patient naïve, taking people at 'face value' being unaware of the intentions of other people? A **NO** score should be recorded if there is no evidence of the above. A **MAYBE** score should be allocated if there is evidence of possible/less serious psychological problems. A **YES** score should be given if there is evidence of definite/serious psychological problems.

V4 **SOCIAL PROBLEMS:** This item is present to highlight the possibility of external stressors which may impact upon the patient's vulnerability. Is there evidence of any recent trauma or current life difficulties or events (e.g., bereavement, divorce, separation), financial worries, legal problems, social or medical strains or burdens or evidence of multiple problems. Also consider forthcoming anniversary dates such as index offence. No evidence of the above should be scored **NO**, some evidence **MAYBE** and clear evidence **YES**.

V5 **EXPLOITATION:** Is the patient vulnerable to exploitation by others? This may be in the context of financial exploitation, physical (bullying) or sexual exploitation (the individual may constitute a sexual preference by others who are predatory in their sexual behaviour). The patient may be 'put upon' by others, being frequently asked to carry out menial tasks on their behalf. Finally ask "has anything been brought to the teams attention which indicates that the individual is vulnerable in their current situation?" No evidence of the above should be scored **NO**, some evidence **MAYBE** and clear evidence **YES**.

VULNERABILITY CODINGS

V1: Mental State	NO ☐	MAYBE ☐	YES ☐
Evidence:			

V2: Physical/Physiological Problems	NO ☐	MAYBE ☐	YES ☐
Evidence:			

V3: Psychological Problems	NO ☐	MAYBE ☐	YES ☐
Evidence:			

V4: Social Problems	NO ☐	MAYBE ☐	YES ☐
Evidence:			

V5: Exploitation	NO ☐	MAYBE ☐	YES ☐
Evidence:			

Patient Name:

Hospital Number:

ESCAPE AND SUBVERSION ITEMS

The following items are relevant to the previous three months and must be scored with that in mind.

Escape in this context includes abscondance from *an authorised period* of escorted leave.

E1 **PLANNING:** Is there evidence to suggest the patient has planned/is planning to escape or has he/she expressed a desire to do so? Consider also whether there is any evidence of internal or external support that may facilitate an escape attempt. A **NO** score should be allocated if there is no evidence of the above. A **MAYBE** score on this item should be given if there is any self-reporting of thoughts, humorous remarks or other indications of a desire to escape. A **YES** score should be recorded for any clear evidence of planning.

E2 **INCENTIVE:** This item appertains to external events or internal stressors which increase the individual's desire to escape. Events such as the death of someone close, stressors from the potential breakdown of a relationship or some other external event that may lead to an increased desire to escape. Internal stressors could be in the form of a notification of extended or renewed status under the Mental Health Act or peer/staff pressure from which there is a desire to escape. A **NO** score should be allocated if there is no evidence of the above. A **MAYBE** score on this item should be given if there is some evidence. A **YES** score should be recorded for any clear evidence of a current incentive to escape.

E3 **INTEREST IN SECURITY:** Evidence of thinking about, or overt expressions of an interest in security features or practices will be included here. Questions regarding keys, locks, CCTV, fences or staff habits and shift patterns should all be considered when scoring this item. A **NO** score should be allotted for no evidence of an interest in security features or practices. A **MAYBE** score can be given if the clinical team is unsure that the motivating factor for such an interest is directly related to security compromise, however if this is the case, further investigation may be necessary to ascertain whether the item can be scored YES. A **YES** coding should be recorded for any clear evidence of an interest in security.

E4 **MENTAL DISORDER:** Might the patient's mental disorder directly impact upon his/her desire to escape? Examples of this might include the content of command hallucinations, threat/control-override symptoms, paranoia associated with current admittance, or other delusions or compulsions allied to a desire to escape. A **NO** score indicates that the patient's mental disorder does not impact on a desire to escape. A **MAYBE** score should be given if the content of any such delusions are not immediately apparent. A **YES** score should be assigned to indicate definite/serious active symptoms of major mental illness impacting upon the patient's desire to escape.

E5 **SUBVERSIVE BEHAVIOUR:** This item will include all types of behaviour that, either intentionally or unintentionally, give cause for concern with regard to safety or security. Clear examples would include a barricading incident (e.g. dining room/day room protest), attempts to isolate staff, any attempts to take anyone hostage, rooftop protest, voiced intents to carry out actions that would put others at risk of harm or jeopardise security. There are many more examples that could be included so the above are by no means exhaustive and assessors are encouraged to score the item according to their clinical judgement. A **NO** score should be allotted if there is no evidence of subversive behaviour illustrated above. A **MAYBE** would be given in the case of unsubstantiated evidence, third party information or suspicion that the individual is attempting to manipulate others thereby putting safety or security at risk. A **YES** score should be allocated for clear evidence of subversive behaviours.

ESCAPE/ABSCONDANCE AND SUBVERSION CODINGS

E1: Planning	NO ☐	MAYBE ☐	YES ☐
Evidence:			

E2: Incentive	NO ☐	MAYBE ☐	YES ☐
Evidence:			

E3: Interest in Security	NO ☐	MAYBE ☐	YES ☐
Evidence:			

E4: Mental Disorder	NO ☐	MAYBE ☐	YES ☐
Evidence:			

E5: Subversive Behaviour	NO ☐	MAYBE ☐	YES ☐
Evidence:			

Patient Name: Hospital Number:

RISK MANAGEMENT ITEMS

This section centres on forecasting how individuals will adjust to future circumstances. Clinical Teams are asked to rate the individual using the same item definitions to assess two distinct scenarios.

The following Risk Management item definitions (R1-5) are therefore used to assess two points in time:
(RM1) Current Care Environment
(RM2) Risk Scenario Planning

(RM1) RISK MANAGEMENT CODINGS

The following ratings are to be made with regard to a suggested care plan as outlined below. When scoring the item bear this proposed plan in mind, with its associated risks and the likely response of the individual to it. The section centres on forecasting how individuals will adjust to **future circumstances**.

Use this section to forecast how individuals might manage in their CURRENT CARE ENVIRONMENT during the next six months.

R1 **PLANS LACK FEASIBILITY:** Lack of feasibility may be due to the fact that community agencies/RSU's are unwilling (due to the patient's behaviour) or unable (due to lack of resources) to provide assistance. Alternatively, the patient may have played no role in making plans or be uninvolved with peers or family. Finally, family and peers may be unable or unwilling to help. A **NO** indicates that there is a low probability that plans will not succeed, **MAYBE** for a moderate probability that plans will not succeed and score **YES** for a high probability that plans will not succeed.

R2 **EXPOSURE TO DESTABILIZERS:** This term appertains to risk increasing factors. In the majority of cases the patient may be exposed to destabilizers because of inadequate professional supervision. Assessors should consider whether the patient would be attending specialized support programmes such as alcohol or substance use sessions for assistance with abstaining from destabilizers. A **NO** indicates that there is a low probability of exposure to destabilizers. A **MAYBE** for a moderate probability and a **YES** score should be given if there is a high probability of exposure to destabilizers.

R3 **LACK OF PERSONAL SUPPORT:** A **NO** should indicate that the individual will have appropriate support. A **MAYBE** score is given if there is a moderate probability of lack of personal support and a **YES** score on this item would appertain to an individual who would lack emotional, financial, or physical support from friends or family, or if such support is available but the individual is unwilling to accept it. It is important to look beyond "good intentions" of friends and family and ensure that they are not just being "used" to secure release.

R4 **NONCOMPLIANCE WITH REMEDIATION ATTEMPTS:** This item should be construed broadly to include remediation attempts in both therapeutic and supervision/management realms. A **NO** indicates that there is a low probability of noncompliance with remediation attempts. A **MAYBE** score should be given if the probability of non-compliance with remediation attempts is judged to be moderate and a **YES** score on this item should be given to individuals who it is felt have little motivation to succeed and unwillingness to comply with medication or therapy, or refuse to follow rules *in the future.*

R5 **STRESS:** This item can be coded **NO to** indicate a low probability of stress. A **MAYBE** score would indicate a moderate probability of stress. A **YES** score should be allocated if the individual is likely to be exposed to serious stressors, or if the individual has been judged to cope poorly with stressful situations.

The above definitions are abbreviated versions of the HCR-20. Users should refer to the HCR-20 manual and companion guide.

RM-1

RISK MANAGEMENT CODINGS

The following ratings are to be made with regard to a suggested care plan as outlined below. When scoring the item bear this proposed plan in mind, with its associated risks and the likely response of the individual to it. The section centres on forecasting how individuals will adjust to **future circumstances**. ***Use this section to forecast how individuals might manage in their CURRENT CARE ENVIRONMENT during the next six months.***

Proposed care plan:

R1: Plan lacks feasibility

NO ☐ **MAYBE** ☐ **YES** ☐

Evidence:

R2: Exposure to destabilizers

NO ☐ **MAYBE** ☐ **YES** ☐

Evidence:

R3: Lack of personal support

NO ☐ **MAYBE** ☐ **YES** ☐

Evidence:

R4: Non-compliance with remediation attempts

NO ☐ **MAYBE** ☐ **YES** ☐

Evidence:

R5: Stress

NO ☐ **MAYBE** ☐ **YES** ☐

Evidence:

Patient Name:

Hospital Number:

RISK MANAGEMENT ITEMS

(RM2) RISK SCENARIO PLANNING

Whilst the items are speculative, they will serve to stimulate the development of appropriate management plans. The Scenario Planning process is important in this section as it allows assessors to assess risk according to where the patient will, or can be expected to live in the near future (i.e., within high secure, medium secure, low secure or community settings, institutional leave etc).

The Risk Management ratings (R1-5) are again to be made, but with regard to a suggested care plan as outlined by the clinical team. When scoring the items bear this proposed plan in mind, with its associated risks and the likely response of the individual to it. This section centres on forecasting how individuals will adjust to **future circumstances**.

Use this section to forecast how individuals might manage in a future scenario. *(e.g., move to a medium secure, low secure or community settings, ground privileges, escorted visit, emergency hospital visit, etc).*

R1 **PLANS LACK FEASIBILITY:** Lack of feasibility may be due to the fact that community agencies/RSU's are unwilling (due to the patient's behaviour) or unable (due to lack of resources) to provide assistance. Alternatively, the patient may have played no role in making plans or be uninvolved with peers or family. Finally, family and peers may be unable or unwilling to help. A **NO** indicates that there is a low probability that plans will not succeed, **MAYBE** for a moderate probability that plans will not succeed and score **YES** for a high probability that plans will not succeed.

R2 **EXPOSURE TO DESTABILIZERS:** This term appertains to risk increasing factors. In the majority of cases the patient may be exposed to destabilizers because of inadequate professional supervision. Assessors should consider whether the patient would be attending specialized support programmes such as alcohol or substance use sessions for assistance with abstaining from destabilizers. A **NO** indicates that there is a low probability of exposure to destabilizers. A **MAYBE** for a moderate probability and a **YES** score should be given if there is a high probability of exposure to destabilizers.

R3 **LACK OF PERSONAL SUPPORT:** A **NO** should indicate that the individual will have appropriate support. A **MAYBE** score is given if there is a moderate probability of lack of personal support and a **YES** score on this item would appertain to an individual who would lack emotional, financial, or physical support from friends or family, or if such support is available but the individual is unwilling to accept it. It is important to look beyond "good intentions" of friends and family and ensure that they are not just being "used" to secure release.

R4 **NONCOMPLIANCE WITH REMEDIATION ATTEMPTS:** This item should be construed broadly to include remediation attempts in both therapeutic and supervision/management realms. A **NO** indicates that there is a low probability of noncompliance with remediation attempts. A **MAYBE** score should be given if the probability of non-compliance with remediation attempts is judged to be moderate and a **YES** score on this item should be given to individuals who it is felt have little motivation to succeed and unwillingness to comply with medication or therapy, or refuse to follow rules *in the future.*

R5 **STRESS:** This item can be coded **NO to** indicate a low probability of stress. A **MAYBE** score would indicate a moderate probability of stress. A **YES** score should be allocated if the individual is likely to be exposed to serious stressors, or if the individual has been judged to cope poorly with stressful situations.

The above definitions are abbreviated versions of the HCR-20. Users should refer to the HCR-20 manual and companion guide.

RM-2

RISK SCENARIO PLANNING

The following ratings are to be made with regard to a suggested care plan as outlined below. When scoring the item bear this proposed plan in mind, with its associated risks and the likely response of the individual to it. This section centres on forecasting how individuals will adjust to **future circumstances**. ***Use this section to forecast how individuals might manage in a future scenario*** *(e.g., move to a medium secure, low secure or community settings, ground privileges, escorted visit, emergency hospital visit, etc).*

Future scenario:

R1: Plan lacks feasibility

NO ☐ MAYBE ☐ YES ☐

Evidence:

R2: Exposure to destabilizers

NO ☐ MAYBE ☐ YES ☐

Evidence:

R3: Lack of personal support

NO ☐ MAYBE ☐ YES ☐

Evidence:

R4: Non-compliance with remediation attempts

NO ☐ MAYBE ☐ YES ☐

Evidence:

R5: Stress

NO ☐ MAYBE ☐ YES ☐

Evidence:

Patient Name:

Hospital Number:

SCJ-1
(Copy to Security Department)

SCJ: Risk – High Risk Summary Sheet

Name: **Hospital Number:**

Ward: **Date:**

Consultant:

On the basis of the information collected in this document the clinical team is asked to make the following five judgements. This should be done as a multi disciplinary team decision where **the overall rating is influenced by and embedded in current clinical knowledge of the patient.**

Where the clinical team judge the patient to present a **high risk** in any category they must for **each risk identified**:

- Document a **risk management plan** for the patient as part of ongoing clinical case management. (Attach sheet titled 'Management Plan')
- Indicate a **date to formally review** the risk and related risk management plan (recommended every 3 months to be clinically relevant – if viable)
- Record their **reasons** for coming to that conclusion
- Give consideration as to whether the patient is to be **confined to their room at night**
- Consider if **the recording of patient's calls** should be included in the risk management plan
- During the decision making process have the following statements must be considered

If the patient is defined to be **a high risk** in any of the above categories a **security liaison nurse must be notified** and be involved in developing the appropriate risk management plan, including the decisions regarding the need to monitor telephone calls and confine the patient in their room at night.

1. The patient has had a high risk level identified in at least one area of concern	**YES** ☐ (Complete section 1.1 -1.5)	**NO** ☐

Does the patient present a...

1.1 High risk of immediate harm to others? Review: H1-H20,C1-C5 & R1-R5	**YES** ☐	**NO** ☐
Reason for high risk conclusion:		

1.2 High risk of harm to self? Review: S1-S5, H3,H5,H6,H8,H9,H13,H14,H15,H17,C1-C5 & R1-R5	**YES** ☐	**NO** ☐
Reason for high risk conclusion:		

1.3 High risk of escape? Review: E1-E10,H10,H16,H18,C1-C5 & R1-R5	**YES** ☐	**NO** ☐
Reason for high risk conclusion:		

1.4 High risk of being assaulted or vulnerability? Review Items: V1-V5,H1,H3,H4,H5,H6,H8,H9,H13,H14, H17,C1-C5 & R1-R5	**YES** ☐	**NO** ☐
Reason for high risk conclusion:		

Patient Name: Hospital Number:

1.5 High risk of action to subvert security and safety? Review Items: E1-E10,H1,H5,H6,H7,H9,H10,H15,H16,H17 ,H18,C1-C5 & R1-R5	**YES** ☐	**NO** ☐
Reason for high risk conclusion:		

2. There is a management plan documented to address the identified risk issues	**YES** ☐	**NO** ☐

3. Date of risk management plan: ___/___/___ **Date for review of risk management plan: ___/___/___**

4. The patient should be confined in their room at night as part of their risk management plan	**YES** ☐	**NO** ☐
Reason for this conclusion:		

5.The patient will have some of their telephone calls monitored as part of their risk management plan	**YES** ☐	**NO** ☐
Reason for this conclusion:		

Decision making team members:

Signature _____ **Designation** _____

Signature _____ **Designation** _____

Signature _____ **Designation** _____

Signature _____ **Designation** _____

Signature _____ **Designation** _____

Signature _____ **Designation** _____

Date of decision: _____ **Date for next review:** _____

Patient Name: Hospital Number:

Risk Management Plan

Risk Management Plan (must be completed where the clinical team judge the patient to present a **high risk** and must record and address **each** of the high risk areas identified. Teams may document **multiple risk management** plans for **each area of risk** identified)
Management Plan of Current Risk
Monitoring (Evidence of effective risk management)
Monitoring Contingency Plan (if risk management is not effective)

Date of risk management plan: __/__/__ **Date for review of risk management plan: __/__/__**

Signature on behalf of the clinical team _____ **Designation** _____.

Patient Name: Hospital Number:

SCJ: Risk Computerised Interface

Enter Assessment

Patient Entry and Case Summary

General Entry Information

Patient Information:

Search Patient:

Name:

Client ID:

Consultant:

Ward:

MHAStatus: Sect 37/41 Hospital Order with Restrictions

Summary of Case Including Index Offence:

11th September 1987 convicted of indecent assault X2 (aged18) and sentenced to 15 yrs youth custody.
Went to court of appeal on 12th Dec 1988, and sentence quashed replaced by hospital order with restrictions.

First offence occurred on 20th Sept 1986, 8.30 pm -Victim aged 26 according to witness statements on the 16th, 17th, 19th Sept victim had seen PA standing in the same place on her way home from work. He stared at her but did not speak. On the night of the offence she was walking to meet a friend when he grabbed her and dragged her to fields behind an old people's

Update

Enter Assessment | Main Menu

Historical

Structured Clinical Judgement: Risk
SCJ Section: HC-1 Historical Codings

Nottinghamshire Healthcare NHS Trust

Historical | Clinical | Suicide or Self-harm | Vulnerability | Escape/Abscondance | Risk Management

Name: **Ward:** **Last Modified Date:** 27/08/2008

H1 Previous violence plus institutional violence ☐ No ☐ Maybe ☑ Yes	Evidence: has a history of sexual violence. In July 1983 he was convicted of indecently assaulting 2 children. In 1/ 1984 he was arrested for indecent
H2 Young age at first violent incident ☐ No ☐ Maybe ☑ Yes	Evidence: indecent assault age 14, 10 at age 18
H3 Relationship instability ☐ No ☐ Maybe ☑ Yes	Evidence: No evidence of any stable intimate relationships in the community. Has a history of being sexually over
H4 Employment problems ☐ No ☑ Maybe ☐ Yes	Evidence: did not maintain hinself in employment in the community. Whilst in hospital he has attended
H5 Substance use problems ☑ No ☐ Maybe ☐ Yes	Evidence: No evidence
H6 Major mental disorder ☑ No ☐ Maybe ☐ Yes	Evidence: No evidence
H7 Psychopathy ☐ No ☑ Maybe ☐ Yes	Evidence: PCL-R dated 5/9/00 percentile rating of 96.7% However more recent PCL-R assessment done at
H8 Early maladjustment ☐ No ☐ Maybe ☑ Yes	Evidence: At school, bottom of class. Offending starting age 11. Unstable family life with mother having multiple
H9 Personality disorder ☐ No ☐ Maybe ☑ Yes	Evidence: Clinical diagnosis of dissocial personality disorder and a definite diagnosis of antisocial personality
H10 Prior supervision failure plus escape and abscondance ☐ No ☐ Maybe ☑ Yes	Evidence: committed much of his offending whilst on bail (for example, on a care order in 1984, he committed burglary and was charged with indecent assault on

H11 Child Protection ☐ No ☐ Maybe ☑ Yes	Evidence: In July 1983 he was convicted of indecently assaulting 2 children.
H12 Sex offending ☐ No ☐ Maybe ☑ Yes	Evidence: see H1
H13 Suicide ☑ No ☐ Maybe ☐ Yes	Evidence: No evidence of suicide attempts.
H14 Self-harm ☐ No ☐ Maybe ☑ Yes	Evidence: hunger strike X2 (1992, 1997), made threats to self harm
H15 Arson ☑ No ☐ Maybe ☐ Yes	Evidence: no evidence
H16 Hostage taking ☐ No ☑ Maybe ☐ Yes	Evidence: 11.08.1995, planned to take female member of staff hostage (Gill Hahn - review of notes, 15.02.08)
H17 Weapons ☐ No ☐ Maybe ☑ Yes	Evidence: 1996, improvised weapons found in his room 2001 - involved in smuggling in a hacksaw (Gil
H18 Concerted indiscipline ☐ No ☑ Maybe ☐ Yes	Evidence: 1992 - implicated in possible absconsion plot with two others
H19 High Public or Political Interest ☑ No ☐ Maybe ☐ Yes	Evidence:
H20 Escape/Abscond History ☐ No ☐ Maybe ☑ Yes	Evidence: Absconded from Aycliffe Training Centre 1992 - implicated in possible absconsion plot with

Spell Check | Save | Main Menu | New Codings >

Current Information

Structured Clinical Judgement: Risk

SCJ Section: CR-1 Clinical Codings

Nottinghamshire Healthcare NHS Trust

Historical	Clinical	Suicide or Self-harm	Vulnerability	Escape/Abscondance	Risk Management

Historical — Clinical — Suicide or Self-harm — Vulnerability — Escape/Abscondance — Risk

Name: **Ward:** **Date:** 04/06/2008 11:01:04

Prior to completing the following risk judgements please give brief description of current care environment and care programme including treatment programmes medication regimes

Current care environment and care-programme:

On treatment ward.

Undergoing admission assessment. Therefore, not engaged in any treatment programmes.

Weekly named nurse sessions - establishing a relationship.

C1 Lack of insight ☐ No ☐ Maybe ☑ Yes	Evidence: Believes he no longer requires treatment and is ready for
C2 Negative attitudes ☑ No ☐ Maybe ☐ Yes	Evidence:
C3 Active symptons of Major Mental Illness ☑ No ☐ Maybe ☐ Yes	Evidence:
C4 Impulsivity ☑ No ☐ Maybe ☐ Yes	Evidence:
C5 Unresponsive to treatment plus medication, psychology, day care, relate to hospital ☐ No ☑ Maybe ☐ Yes	Evidence: Engaged in assessment process. Tells minimum he can; will not divulge any extra information. Has been in special hospital for

Scroll Records | Spell Check | Save | Main Menu

Record: 1 of 1 (Filtered)

Current Information

Structured Clinical Judgement: Risk

SCJ Section: SR-1 Suicide or Self-harm Codings

Nottinghamshire Healthcare NHS Trust

Historical	Clinical	Suicide or Self-harm	Vulnerability	Escape/Abscondance	Risk Management

Historical — Clinical — Suicide or Self-harm — Vulnerability — Escape/Abscondance — Risk

Name: **Ward:** **Date:** 04/06/2008 11:01:04

Include any other information below:

S1 Suicidal Ideation ☑ No ☐ Maybe ☐ Yes	Evidence:
S2 Hopelessness ☑ No ☐ Maybe ☐ Yes	Evidence:
S3 Frequency ☑ No ☐ Maybe ☐ Yes	Evidence:
S4 Severity ☑ No ☐ Maybe ☐ Yes	Evidence:
S5 Planning ☑ No ☐ Maybe ☐ Yes	Evidence:

Scroll Records | Spell Check | Save | Main Menu

Record: 1 of 1 (Filtered)

Current Information

Structured Clinical Judgement: Risk

SCJ Section: VR-1 Vulnerability Codings

Nottinghamshire Healthcare NHS Trust

Historical | Clinical | Suicide or Self-harm | Vulnerability | Escape/Abscondance | Risk Management

Historical — Clinical — Suicide or Self-harm — Vulnerability — Escape/Abscondance

Name: **Ward:** **Date:** 04/06/2008 11:01:04

V1 Mental state ☑ No ☐ Maybe ☐ Yes	Evidence:
V2 Physical/Physiological problems ☑ No ☐ Maybe ☐ Yes	Evidence:
V3 Psychological problems ☑ No ☐ Maybe ☐ Yes	Evidence:
V4 Social problems ☑ No ☐ Maybe ☐ Yes	Evidence:
V5 Exploitation ☑ No ☐ Maybe ☐ Yes	Evidence:

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Record: 1 of 1 (Filtered)

Current Information

Structured Clinical Judgement: Risk

SCJ Section: ER-1 Escape/Abscondance and Subversion Codings

Nottinghamshire Healthcare NHS Trust

Historical | Clinical | Suicide or Self-harm | Vulnerability | Escape/Abscondance | Risk Management

Historical — Clinical — Suicide or Self-harm — Vulnerability — Escape/Abscondance

Name: ABBOT, Paul Tony **Ward:** PD Erskine **Date:** 04/06/2008 11:01:04

E1 Planning ☑ No ☐ Maybe ☐ Yes	Evidence:
E2 Incentive ☑ No ☐ Maybe ☐ Yes	Evidence:
E3 Interest in security ☐ No ☑ Maybe ☐ Yes	Evidence: Has shown an interest in layout of internal wards.
E4 Mental disorder ☑ No ☐ Maybe ☐ Yes	Evidence:
E5 Subversive behaviour ☐ No ☑ Maybe ☐ Yes	Evidence: Passed his prescribed nicotine lozenges to another patient.

Scroll Records | Spell Check | Save | Main Menu

Record: 1 of 1 (Filtered)

Current Information

Structured Clinical Judgement: Risk

SCJ Section: ER-1 Escape/Absconsance and Subversion Codings

Nottinghamshire Healthcare NHS Trust

Historical | Clinical | Suicide or Self-harm | Vulnerability | Escape/Absconsance | Risk Management

Historical — Clinical — Suicide or Self-harm — Vulnerability — Escape/Absconsance

Name: **Ward:** **Date:** 04/06/2008 11:01:04

E1 Planning ☑ No ☐ Maybe ☐ Yes	Evidence:
E2 Incentive ☑ No ☐ Maybe ☐ Yes	Evidence:
E3 Interest in security ☐ No ☑ Maybe ☐ Yes	Evidence: Has shown an interest in layout of internal wards.
E4 Mental disorder ☑ No ☐ Maybe ☐ Yes	Evidence:
E5 Subversive behaviour ☐ No ☑ Maybe ☐ Yes	Evidence: Passed his prescribed nicotine lozenges to another patient.

Scroll Records | Spell Check | Save | Main Menu

Record: 1 of 1 (Filtered)

Risk

Structured Clinical Judgement: Risk

SCJ Section: RM-1 Risk Management Codings

Nottinghamshire Healthcare NHS Trust

Historical | Clinical | Suicide or Self-harm | Vulnerability | Escape/Absconsance | Risk Management | SCJ: Risk

Historical — Clinical — Suicide or Self-harm — Vulnerability — Escape/Absconsance — Risk — SCJ: Risk

Name: ABBOT, Paul Tony **Ward:** PD Erskine **Date:** 04/06/2008 11:01:04

The following ratings are to be made with regard to a suggested care plan as outlined below. When scoring the item bear this proposed plan in mind, with it's associated risks and the likely response of the individual to it. The section centres on forecasting how individuals will adjust to future circumstances.

Proposed care plan:

See current plan.

R1 Plan lacks feasibility ☑ No ☐ Maybe ☐ Yes	Evidence:
R2 Exposure to destabilizers ☑ No ☐ Maybe ☐ Yes	Evidence:
R3 Lack of personal support ☑ No ☐ Maybe ☐ Yes	Evidence:
R4 Non-compliance with remediation attempts ☐ No ☑ Maybe ☐ Yes	Evidence: Is a chance he will not engage in assessment process.
R5 Stress ☐ No ☑ Maybe ☐ Yes	Evidence: Assessment itself might be stressful.

Scroll Records | Save | Main Menu | View Scenarios | Add Scenario

Record: 1 of 1 (Filtered)

Risk

Structured Clinical Judgement: Risk

SCJ Section: RM-1 Risk Management Codings

Nottinghamshire Healthcare NHS Trust

Historical	Clinical	Suicide or Self-harm	Vulnerability	Escape/Abscondance	Risk Management	SCJ: Risk

Historical — Clinical — Suicide or Self-harm — Vulnerability — Escape/Abscondance — Risk — SCJ: Risk

Name: **Ward:** **Date:** 04/06/2008 11:01:04

The following ratings are to be made with regard to a suggested care plan as outlined below. When scoring the Rem bear this proposed plan in mind, with it's associated risks and the likely response of the individual to it. The section centres on forecasting how individuals will adjust to future circumstances.

Proposed care plan:

See current plan.

R1 Plan lacks feasibility ☑ No ☐ Maybe ☐ Yes	Evidence:
R2 Exposure to destabilizers ☑ No ☐ Maybe ☐ Yes	Evidence:
R3 Lack of personal support ☑ No ☐ Maybe ☐ Yes	Evidence:
R4 Non-compliance with remediation attempts ☐ No ☑ Maybe ☐ Yes	Evidence: Is a chance he will not engage in assessment process.
R5 Stress ☐ No ☑ Maybe ☐ Yes	Evidence: Assessment itself might be stressful.

Scroll Records | Save | Main Menu | View Scenarios | Add Scenario

Record: 1 of 1 (Filtered)

Risk

Structured Clinical Judgement: Risk

SCJ Section: SCJ-1 High Risk Summary

Nottinghamshire Healthcare NHS Trust

Historical	Clinical	Suicide or Self-harm	Vulnerability	Escape/Abscondance	Risk Management	SCJ: Risk

Historical — Clinical — Suicide or Self-harm — Vulnerability — Escape/Abscondance — Risk — SCJ: Risk

Name: ABBOT, Paul Tony **Ward:** PD Erskine **Date:** 04/06/2008 11:01:04

1. The patient has had a high risk level identified in at least one area of concern? ☑ YES ☐ NO

(If Yes, complete sections 1.1-1.5)

1.1 High risk of immediate harm to others? Review: H1-H20, C1-C5 & R1-R5 ☐ YES ☑ NO MP

Reason for high risk conclusion:

1.2 High risk of harm to self? Review: S1-S5, H3,H5,H6,H8,H9,H13,H14,H15,H17,C1-C5 & R1-R5 ☐ YES ☑ NO MP

Reason for high risk conclusion:

1.3 High risk of escape? Review: E1-E10,H10,H16,H18,C1-5 & R1-R5 ☐ YES ☑ NO MP

Reason for high risk conclusion:

1.4 High risk of being assaulted or vulnerability? Review: V1-V5,H1,H3,H4,H5,H6,H8,H9,H13,H14,H17, C1-C5 & R1-R5 ☐ YES ☑ NO MP

Reason for high risk conclusion:

1.5 High risk of action to subvert security and safety? Review: E1-E10,H1,H5,H6,H7,H9,H10,H15,H16, H17,H18,C1-C5 & R1-R5 ☑ YES ☐ NO MP

Reason for high risk conclusion:

Has a history of subverting security and safety in Ashworth Hospital

2. There is a management plan documented to address the identified risk issues ☑ YES ☐ NO

3. Date of risk management plan: 03/06/2008

Date for review of risk management plan: 03/09/2008

4. The patient should be confined to their room at night as part of their management plan ☐ YES ☑ NO

Reason for this conclusion:

5. The patient will have some of their telephone calls monitored as part of their risk management plan ☑ YES ☐ NO

Reason for this conclusion:

Calls to Sue Coney and Jackie Plews monitored. This was started at Ashworth Hospital. Phone calls to Sue Coney are monitored because there were concerns that

Decision making team members:

Signature:	Willmot, Philip Martin Evan	Designation:	Acting Consultant Forensic P
Signature:	Mitchell, Diane Kathleen M	Designation:	Senior Occupational Therapis
Signature:	KAUR, Kamaljit Miss (Art	Designation:	Art Therapist
Signature:	Findlay, Sharyn Margaret M	Designation:	Nurse Practioner
Signature:	Beard, David Mr (Staff Nu	Designation:	Staff Nurse
Signature:		Designation:	
Signature:		Designation:	
Signature:		Designation:	

Date of decision: 03/06/2008 Validate Record ☑

Date for next review: 03/09/2008 Validated By: dslMk 6/2008 13:0

Scroll Records | Risk Issues | Save | Main Menu | Print SCJ-1 | General MP | View Scenarios | Add Scenario

Record: 1 of 1 (Filtered)

Risk

Structured Clinical Judgement: Risk
SCJ Section: SCJ-1 High Risk Summary

Nottinghamshire Healthcare NHS Trust

Historical | Clinical | Suicide or Self-harm | Vulnerability | Escape/Abscondance | Risk Management | SCJ: Risk

Historical — Clinical — Suicide or Self-harm — Vulnerability — Escape/Abscondance — Risk — SCJ: Risk

Name: **Ward:** **Date:** 04/06/2008 11:01:04

1. The patient has had a high risk level identified in at least one area of concern? (If Yes, complete sections 1.1-1.5)	☑ YES ☐ NO
1.1 High risk of immediate harm to others? Review: H1-H20, C1-C5 & R1-R5	☐ YES ☑ NO MP
Reason for high risk conclusion:	
1.2 High risk of harm to self? Review: S1-S5, H3,H5,H6,H8,H9,H13,H14,H15,H17,C1-C5 & R1-R5	☐ YES ☑ NO MP
Reason for high risk conclusion:	
1.3 High risk of escape? Review: E1-E10,H10,H16,H18,C1-5 & R1-R5	☐ YES ☑ NO MP
Reason for high risk conclusion:	
1.4 High risk of being assaulted or vulnerability? Review: V1-V5,H1,H3,H4,H5,H6,H8,H9,H13,H14,H17, C1-C5 & R1-R5	☐ YES ☑ NO MP
Reason for high risk conclusion:	
1.5 High risk of action to subvert security and safety? Review: E1-E10,H1,H5,H6,H7,H9,H10,H15,H16, H17,H18,C1-C5 & R1-R5	☑ YES ☐ NO MP
Reason for high risk conclusion: Has a history of subverting security and safety in Ashworth Hospital	

2. There is a management plan documented to address the identified risk issues	☑ YES ☐ NO
3. Date of risk management plan:	03/06/2008
Date for review of risk management plan:	03/09/2008
4. The patient should be confined to their room at night as part of their management plan	☐ YES ☑ NO
Reason for this conclusion:	
5. The patient will have some of their telephone calls monitored as part of their risk management plan	☑ YES ☐ NO
Reason for this conclusion: Calls to Sue Coney and Jackie Plews monitored. This was started at Ashworth Hospital. Phone calls to Sue Coney are monitored because there were concerns that	

Decision making team members:

Signature:		Designation:	Acting Consultant Forensic P
Signature:		Designation:	Senior Occupational Therapis
Signature:		Designation:	Art Therapist
Signature:		Designation:	Nurse Practioner
Signature:		Designation:	Staff Nurse
Signature:		Designation:	
Signature:		Designation:	
Signature:		Designation:	
Date of decision:	03/06/2008	Validate Record	☑
Date for next review:	03/09/2008	Validated By:	6/2008 13:0

Scroll Records | Risk Issues | Save | Main Menu | Print SCJ-1 | General MP | View Scenarios | Add Scenario

Record: 1 of 1 (Filtered)

Risk Scenario Planning

Structured Clinical Judgement: Risk
SCJ Section: Risk Related Issues

Nottinghamshire Healthcare NHS Trust

Name: **Ward:** **Date:** 04/06/2008 11:01:04

Ground Priviledge

Level of Escorting Within the Hospital Grounds	☑ Normal	☐ Enhanced	☐ Singleton
Any other special requirements:			
Considered suitable for Ground Privilege (but don't currently have Ground Privilege)	☐ Yes	☑ No	
Has Ground Privilege Status	☐ Yes	☑ No	
Access to Lighter (if Ground Privilege patient)	☐ Yes	☑ No	

Drugs Screening Requirements

Does the patient require screening in addition to the routine	☐ Yes	☑ No
If Yes Comment:		

Telephone Access

Does the patient need staff intervention in addition to routine practice	☐ Yes	☑ No

Supportive Supervision	Monitoring	Monitor and Record Calls
☐ Yes ☑ No	☐ Yes ☑ No	☑ Yes ☐ No

Comments:
Monitor calls to Sue Coney and Jackie Plews.

Room Searching

Does the patient require intervention in addition to routine room searching	☐ Yes	☑ No
If Yes Comment:		

Rubdown Search

Does the patient require intervention in addition to routine rubdown searching	☐ Yes	☑ No
If Yes Comment:		

Leave of Absence

Suitable for Rehabilitation Leave of Absence	☐ Yes	☑ No

Escort Requirement for Leave of Absence

Handcuffs	☐ None	☐ Single	☑ Multiple			
Number of Escorts Required	☐ One	☐ Two	☐ Three	☑ Four	☐ Five	☐ Six
Gender Restrictions	☐ Yes	☑ No				
Comments/other restrictions: Handcuffs carried and worn. 3 males and 1 female escorts.						

Child Protection

Requirements for Child Protection Trained Nurse	☐ None	☐ Introductory	☑ Advanced

Signature: Designation: Consultant Forensic Psychia

Scroll Records | Save | Close | Print | Route

Record: 1 of 1 (Filtered)

Structured Clinical Judgement: Risk
SCJ Section: Risk Management Plan

Nottinghamshire Healthcare NHS Trust

Name: **Ward:** **Date:** 04/06/2008 11:01:04

Risk Management Plan (must be completed where the clinical team judge the patient to present high risk and must record and address each of the high risk areas identified)

General

Management Plan of Current Risk:

1 To be aware of his history

2 To be vigilant - [illegible]

3 If have suspicions that is [illegible] to take appropriate action

Monitoring (Evidence of effective risk management):

Monitor possessions in his room/locker.

Mail monitoring.

Monitoring of phone calls to and

Monitoring Contingency Plan (if risk management is not effective)

Date of risk management plan: 03/06/2008 **Date for review of risk management plan:** 03/09/2008

Table A1. Table to Show Compliance to the SCJ: Risk system[1]. Displayed by Directorate, Month and Year (September 2006 to July 2008).

		09/06	10/06	11/06	01/07	02/07	03/07	06/07	08/07	11/07	01/08	03/08	05/08	07/08
Hospital Total	**%**	**44**	**52**	**64**	**87**	**81**	**84**	**87**	**90**	**94**	**92**	**98**	**99**	**99**
	n	120	157	209	348	329	341	325	318	317	311	341	331	346
The Peaks Unit	**%**	**83**	**70**	**70**	**83**	**83**	**83**	**83**	**98**	**96**	**94**	**96**	**100**	**98**
	n	29	25	25	42	43	43	44	45	46	45	46	50	50
Personality Disorder	**%**	**16**	**42**	**66**	**87**	**68**	**90**	**87**	**86**	**92**	**90**	**100**	**100**	**98**
	n	13	38	53	71	54	71	67	64	58	56	66	62	63
Mental Health	**%**	**23**	**27**	**48**	**94**	**95**	**98**	**97**	**96**	**96**	**96**	**100**	**100**	**99**
	n	35	41	72	147	149	147	140	138	133	128	138	134	138
Learning Disability	**%**	**84**	**93**	**89**	**73**	**71**	**72**	**84**	**81**	**88**	**96**	**100**	**100**	**96**
	n	37	39	38	48	45	44	36	31	33	44	48	44	43
Women's Service	**%**	**14**	**30**	**45**	**98**	**86**	**79**	**84**	**91**	**96**	**96**	**100**	**100**	**96**
	n	6	14	21	40	38	36	38	40	47	44	48	44	43

[1] Shows an SCJ: Risk discussion had taken place and was inputted into the computerised system. This appendix documents the compliance of use of the SCJ: Risk system. Use of the system as part of ongoing clinical practice has risen steadily since auditing began in September 2006

Figure A1. Graphical Representation of Compliance of Use of the SCJ: Risk System for the Total Population

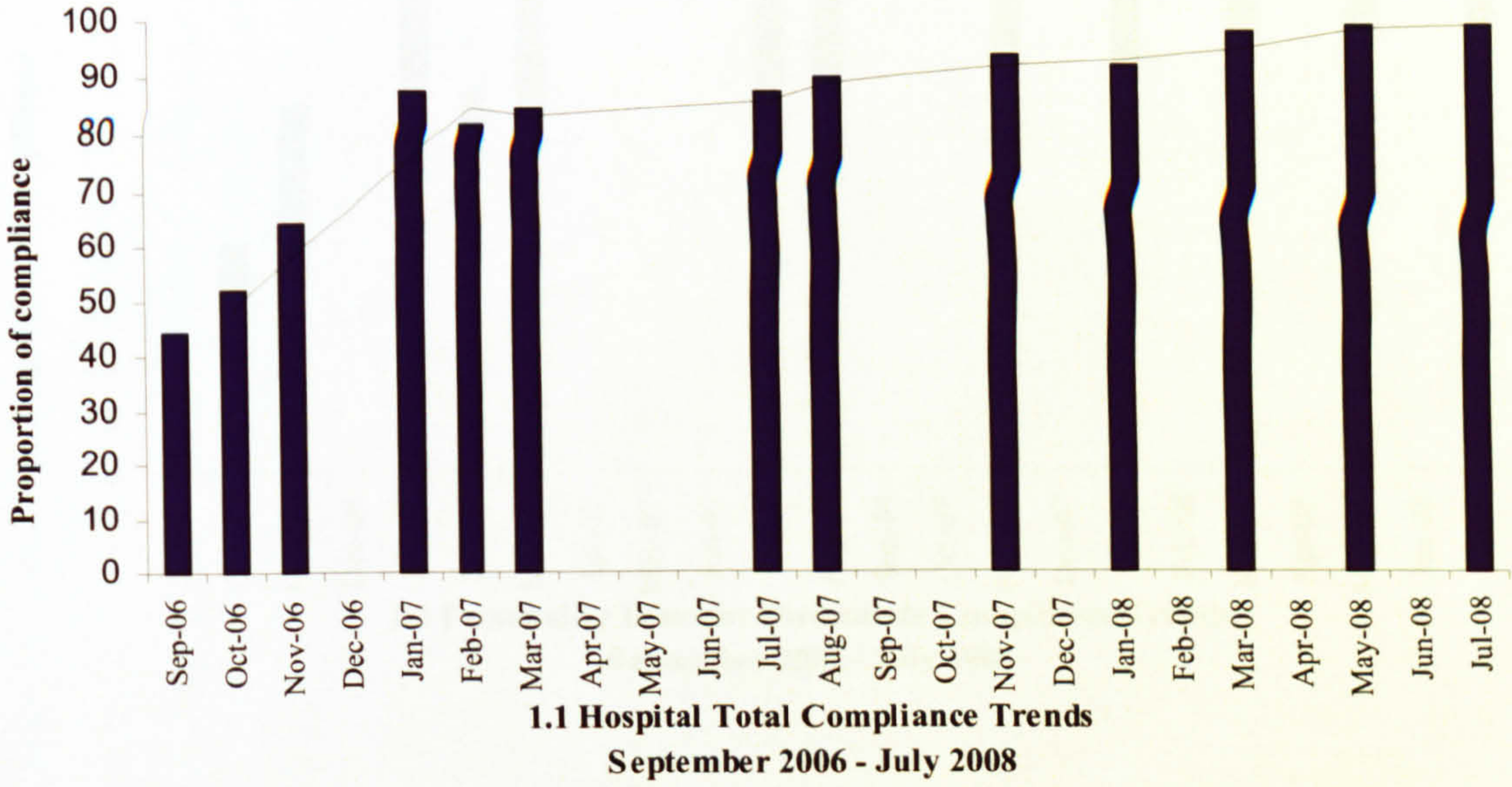


Figure A2. Graphical Representation of Compliance of Use of the SCJ: Risk System for the Peaks Unit (DSPD)

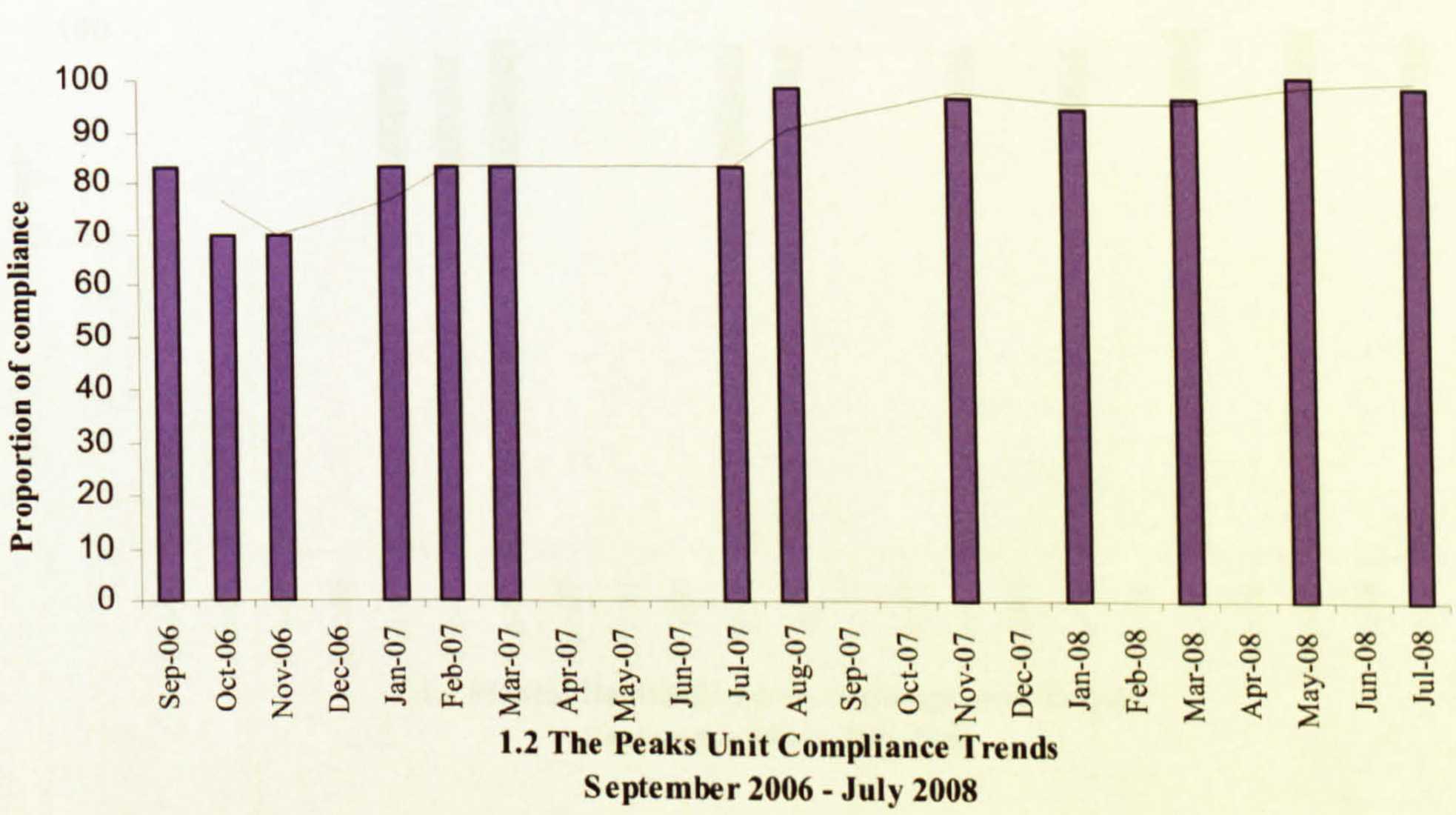


Figure A3. Graphical Representation of Compliance of Use of the SCJ: Risk System for the Directorate of Personality Disorder

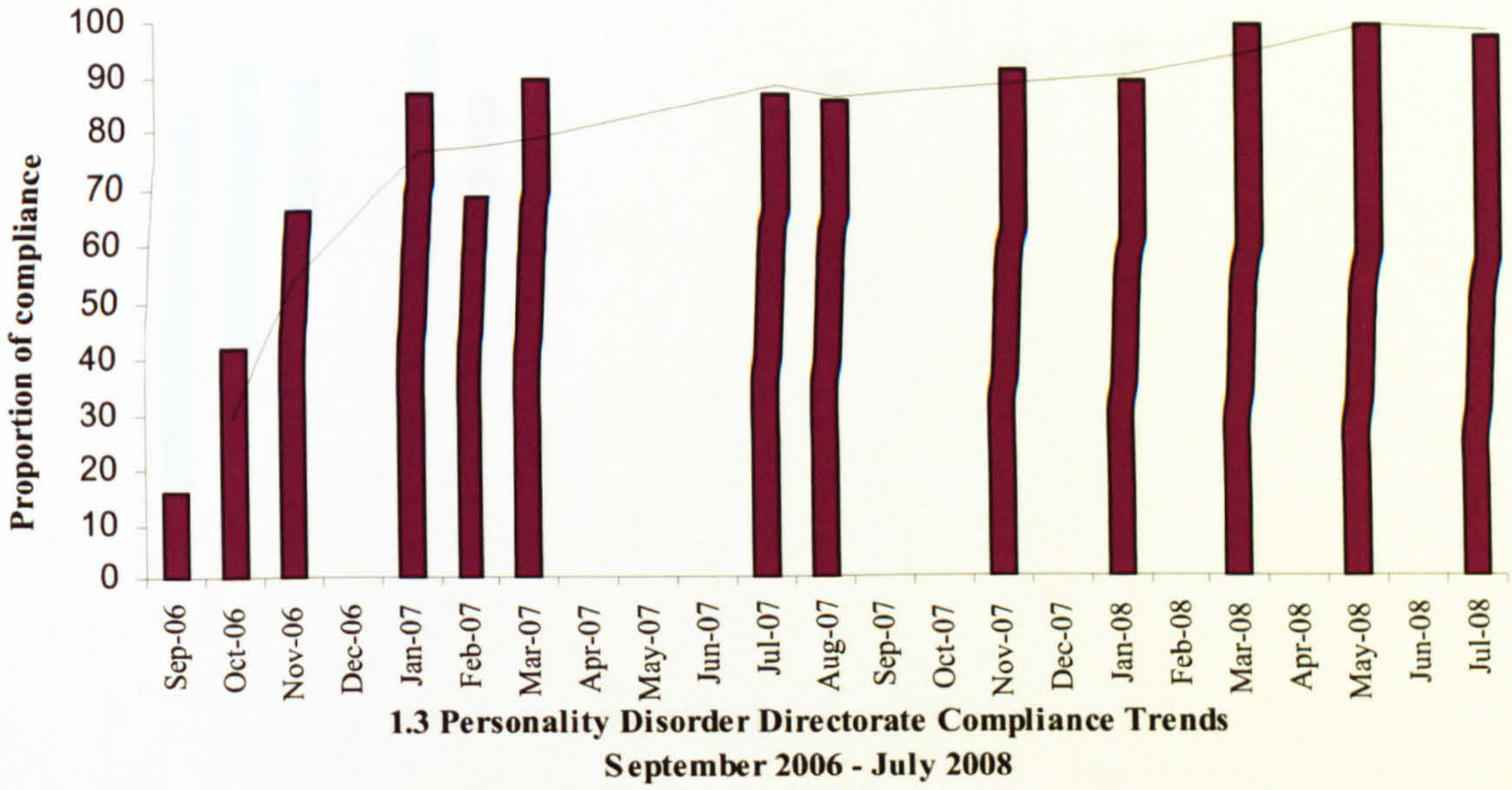


Figure A4. Graphical Representation of Compliance of Use of the SCJ: Risk System for the Directorate of Mental Health

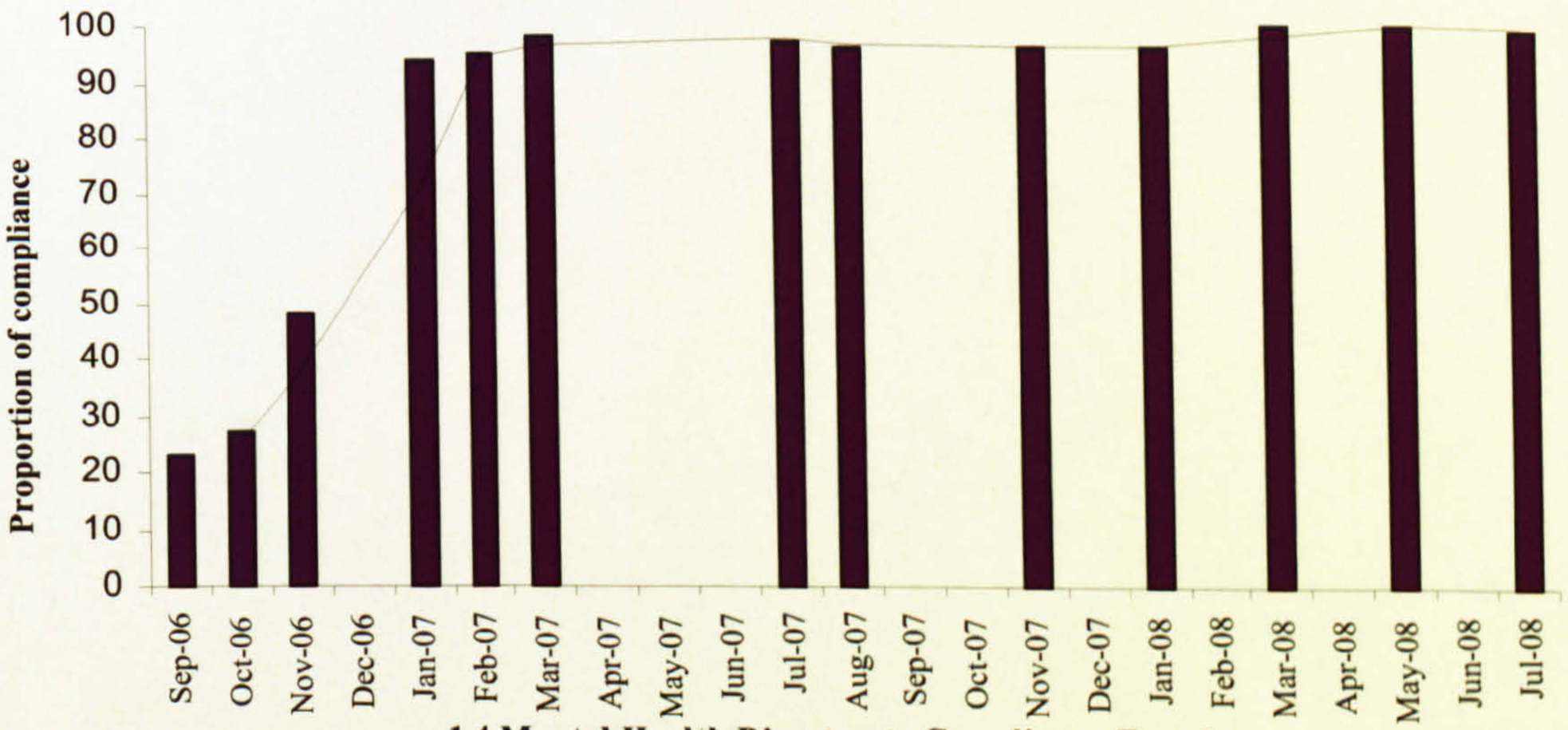


Figure A5. Graphical Representation of Compliance of Use of the SCJ: Risk System for the Directorate of Learning Disability

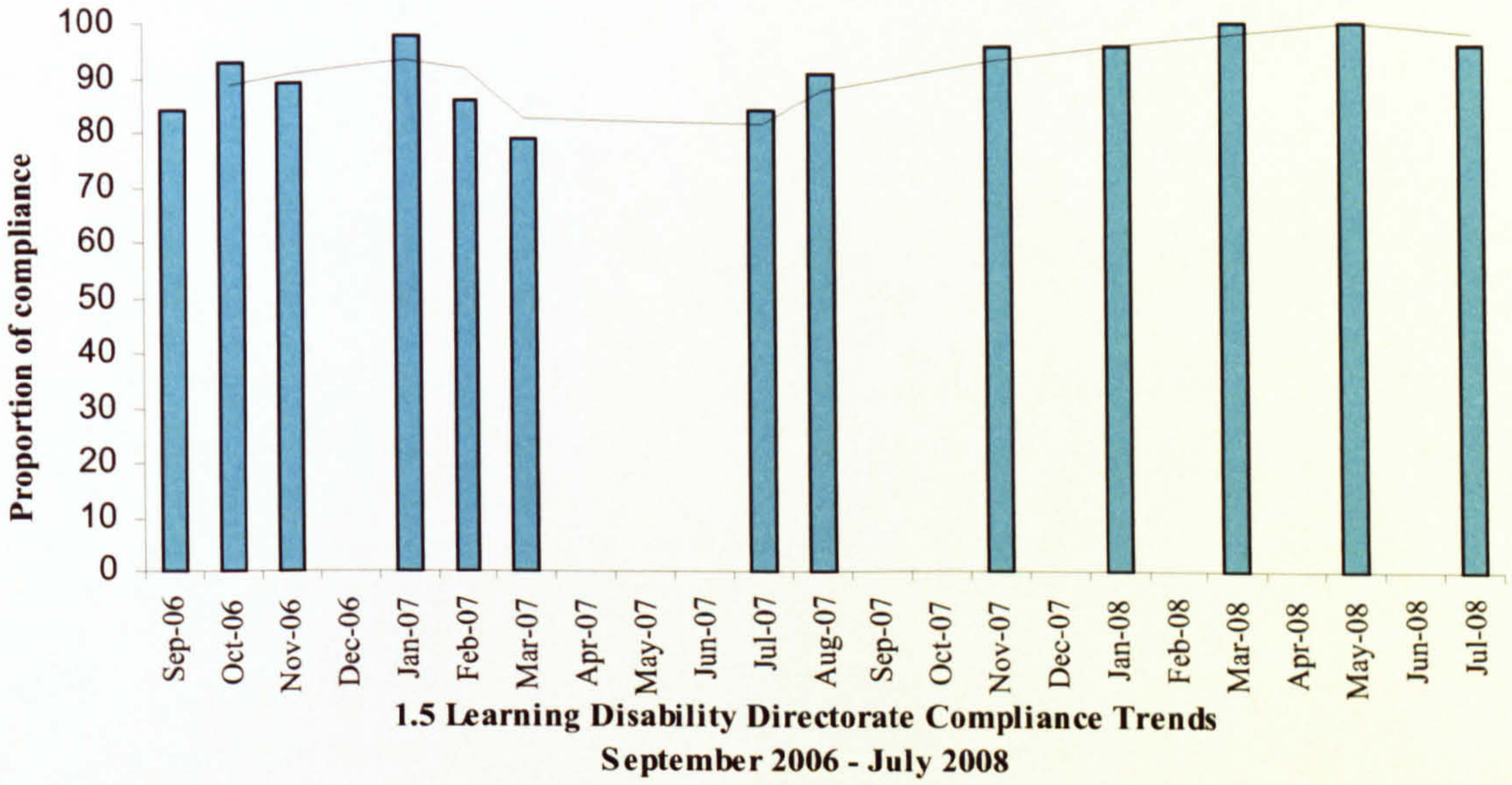
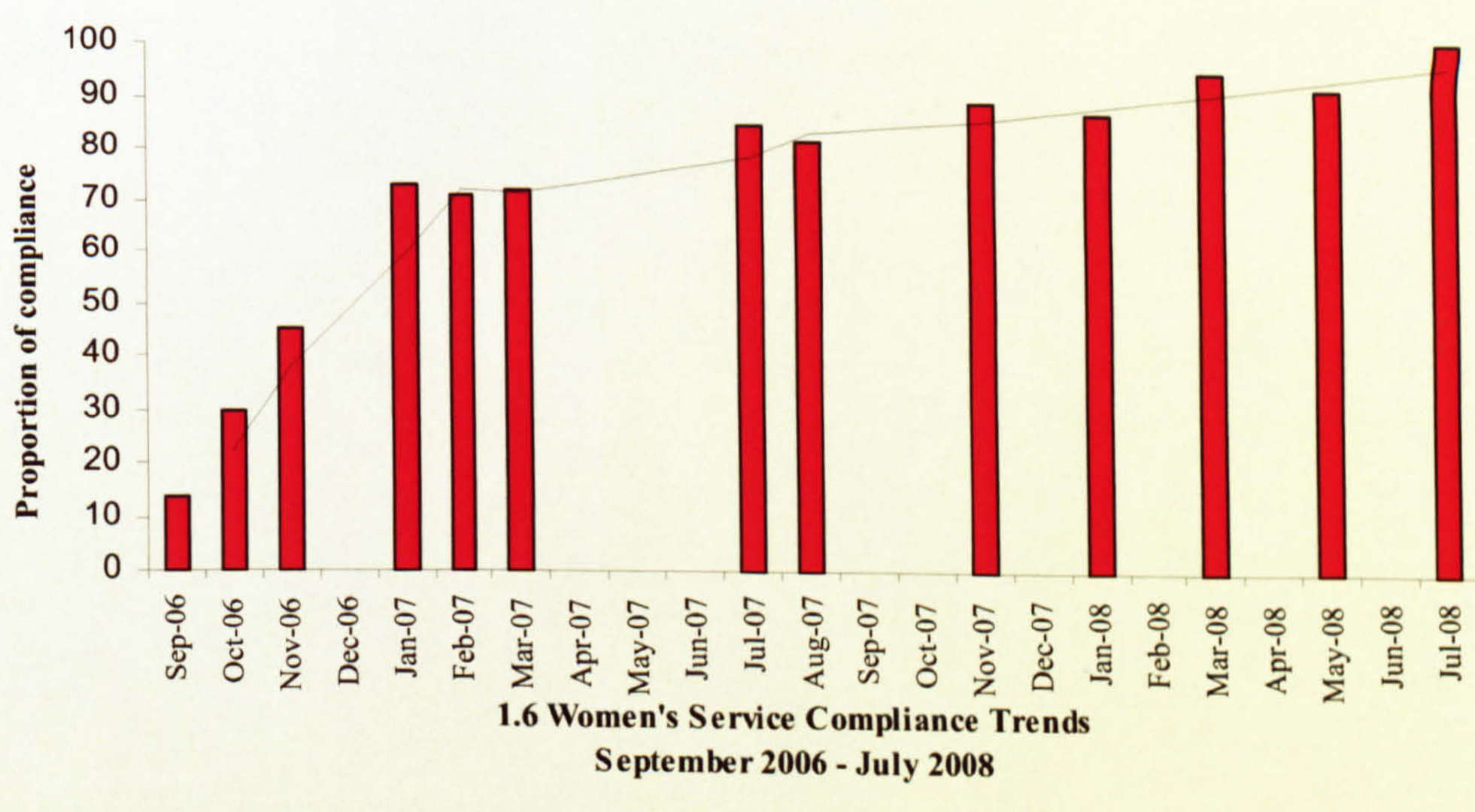


Figure A6. Graphical Representation of Compliance of Use of the SCJ: Risk System for the Directorate of Women's Services



Appendix Two

Evaluation Questionnaire SCJ: Risk (Structured Clinical Judgement)

Directorate:.....
Ward:.....

All responses will be treated in confidence and respondents will not be identified in any report or correspondence emanating from the data collected.

1.1 I have attended a SCJ training session (please circle each session attended)

Oct 2003 – West Retford Hotel
Nov 2004 – Rampton Hospital
Local training 2005 – Delivered on ward location
I have not received formal training, but use the SCJ

1.2 Refresher training should be provided

Strongly agree | Agree | Neutral | Disagree | Strongly disagree

If relevant specify how often refresher training should be provided (please circle)

Annually
6 monthly
3 monthly

1.3 How many times have you used the SCJ (how many cases)?

1-3 | 4-6 | 7-10 | 11-13 | 14+

2.1 Overall the SCJ risk assessment system is useful

Strongly agree | Agree | Neutral | Disagree | Strongly disagree

2.2 The SCJ assists clinical teams in making and documenting risk related decisions

Strongly agree | Agree | Neutral | Disagree | Strongly disagree

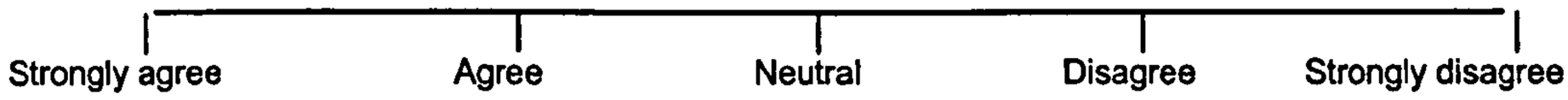
2.3 The SCJ is useful in documenting the Tilt security review recommendations of related judgements

Strongly agree | Agree | Neutral | Disagree | Strongly disagree

2.4 The SCJ is useful in constructing a risk management plan

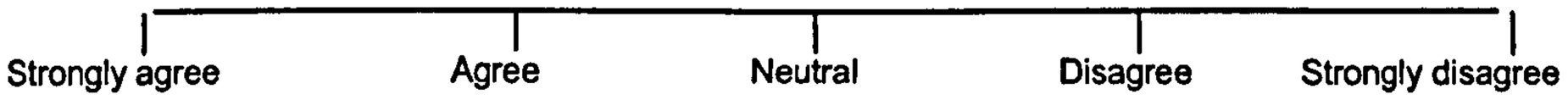
Strongly agree | Agree | Neutral | Disagree | Strongly disagree

2.5 The SCJ is useful in informing clinical practice



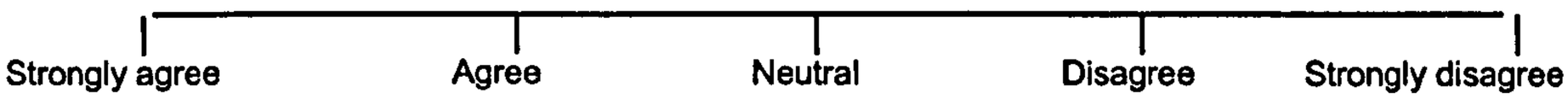
2.6 The SCJ is useful in informing patient care

2.7 The SCJ accurately assesses a patient's risk



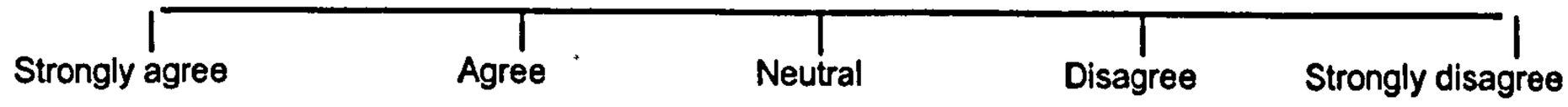
3.1 The SCJ is more user friendly than previous risk assessment systems

3.2 It has been feasible for the clinical team to review the SCJ for each patient every three months

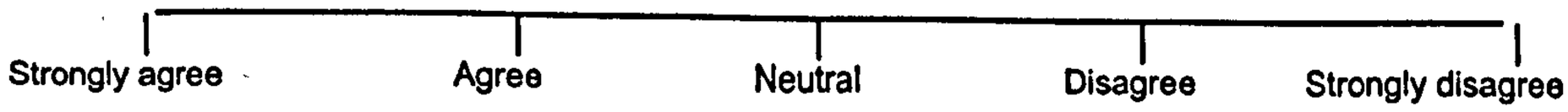


If relevant, could you suggest ways to ensure completions every three months / why is it currently not possible?.....
.....
.....
.....
.....
.....
.....
.....

4.1 All components of the SCJ should be completed in a multi-disciplinary format



4.2 In my clinical team, all components of the SCJ are completed in a multi-disciplinary format.

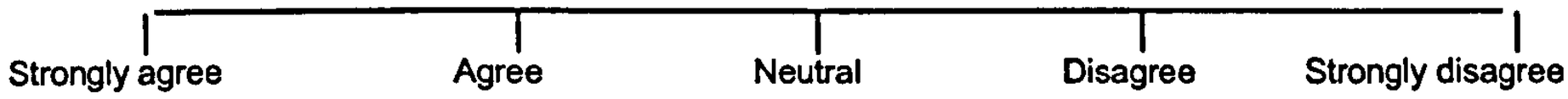


Please circle any relevant statements below:

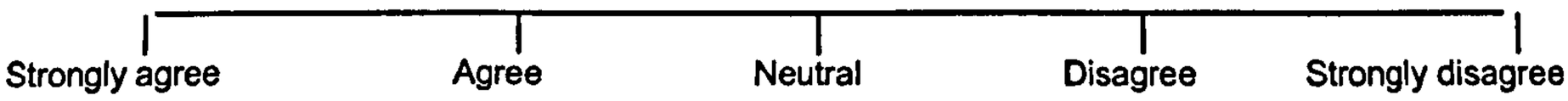
The entire SCJ is completed by one or two MDT members - specify position / role.....

Certain sections of the SCJ are completed by one or two MDT members – specify member grade / position and SCJ
section(s).....
The entire completion of the SCJ falls on one discipline within the team –
specify.....
Certain sections of the SCJ falls on one discipline within the team-
specify.....
Other
comments.....
.....

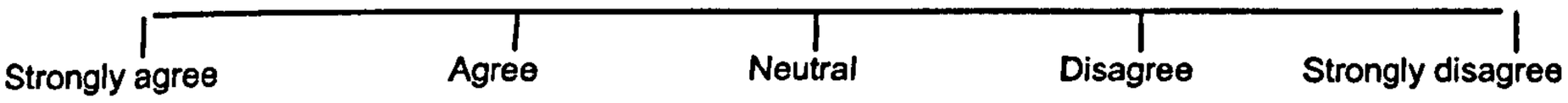
4.3 Piloting the SCJ has improved MDT working



4.4 I feel as though I make a positive contribution to the SCJ risk decision making process



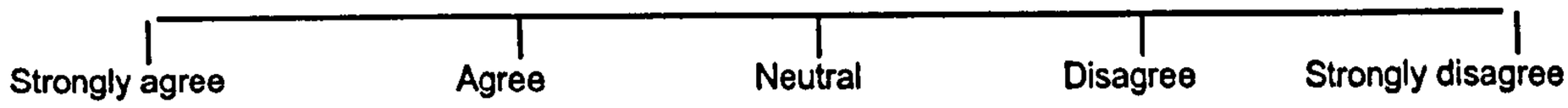
4.5 Within the team there is a resistance to using the SCJ



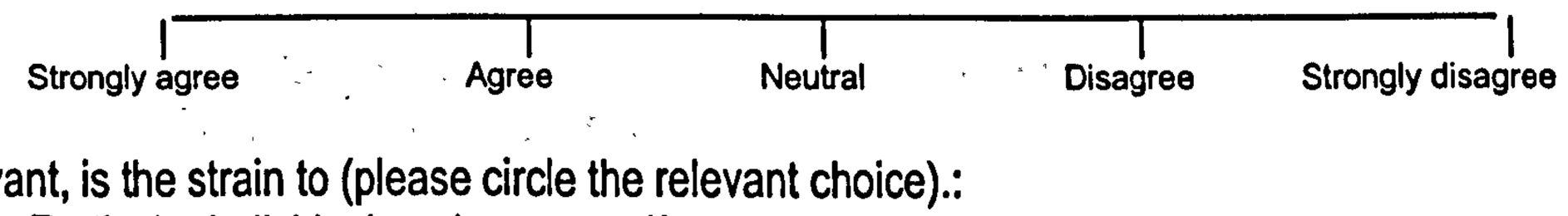
If relevant, please circle relevant statements:

Low motivation
Resistance to change
Lack of support from other team members
Other please
specify.....

4.6 The management plan agreed during MDT discussions is being implemented for each patient assessed



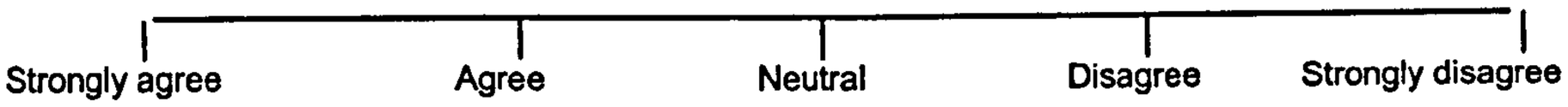
5.1 Completion of the SCJ has put a significant strain on current clinical resources



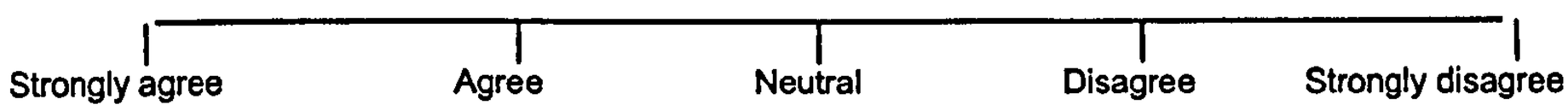
If relevant, is the strain to (please circle the relevant choice).:

Particular individuals - please specify
The whole team
Other
comments.....

5.2 It would be beneficial to have a regular designated time to discuss the SCJ where all MDT members are present.



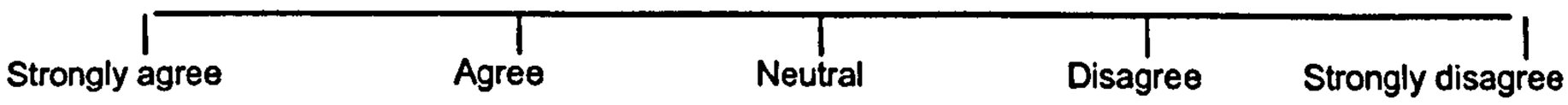
5.3 The SCJ integrates features of other clinical and risk assessment tools (excluding the HCR-20)



If relevant agree please specify which tools.....

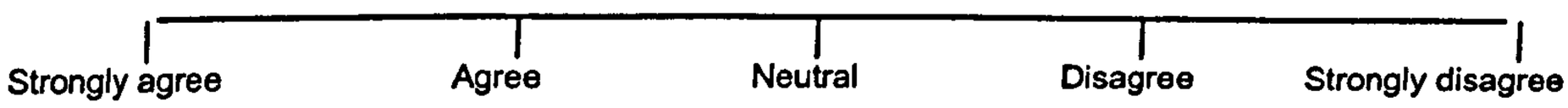
Comments.....

6.1 Additional resources are necessary to successfully document the SCJ risk system

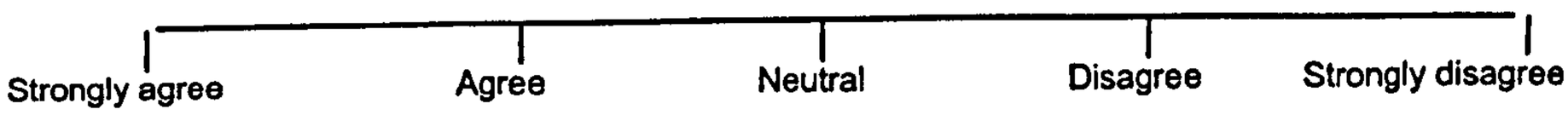


If relevant, please specify the resources that would be helpful (e.g. additional admin resources).....

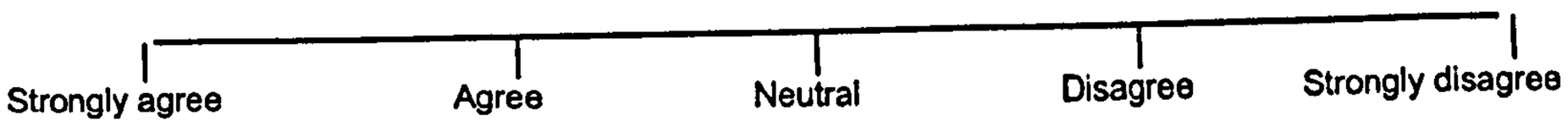
6.2 The SCJ risk system should be embedded in policy



6.3 It is useful to have a contact person (*SCJ coordinator external to the team*) to assist clinical team implementation and assist clinical risk decisions.



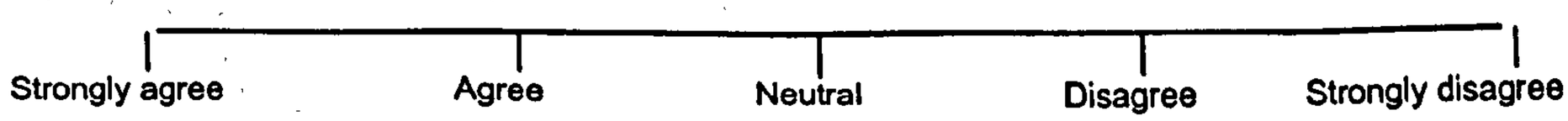
6.4 It is useful for the clinical team to have a *nominated contact(s)* to liaise with the SCJ coordinator



6.5 Which profession do you think should hold position of 'nominated contact' (MDT member to liaise with SCJ coordinator / take overall responsibility for SCJ completions)

Please state
profession(s).....

7.1 It is important that elements of the SCJ are evaluated



7.2 It is important that outcomes of evaluations are communicated back to clinical teams

7.3 What changes would you make to any aspect of the SCJ?

7.4 Any other comments?

SCJ: RISK SERVICE EVALUATION QUESTIONNAIRE

Directorate: please indicate

Mental Health	
Learning Disability	
The Peaks Unit	
Personality Disorder	
Women's Service	

Profession: please enter

Ward(s): please enter

On a scale of 1 to 5, please could you indicate the extent to which you agree or disagree with the following statements related to the SCJ: Risk

The scale is as follows:
1 = Strongly Agree. 2 = Agree. 3 = Neutral. 4 = Disagree. 5 = Strongly Disagree.
Please indicate your opinion

The SCJ.....	X	x	x	x	x
	1	2	3	4	5
is useful overall					
assists clinical teams make and document risk decisions					
facilitates documentation of the Tilt security requirements					
allows the effective construction of risk management plans					
informs clinical practice					
Accurately assesses a patient's risk					
helps plan for future scenarios					
is more user-friendly than previous risk assessment systems (e.g. CRAFT, Tilt returns)					
should be possible to review every 3 months					
should be possible to review every 12 months					
should be reviewed every 3 months if a patient is identified as high-risk					
is completed with the majority of MDT members present					
has improved MDT working					
puts a significant strain on current clinical resources					
contact person (external to the clinical team) is a useful resource					
Directorate representative is a useful liaison link with the SCJ team					
evaluations should be communicated back to clinical teams					
should be provisionally completed before a patient is admitted					

is unclear in certain sections If you have stated agree or strongly agree please specify which sections or specific items or definitions / explanations are problematic, and suggestions as to how to aid clarity...					
is irrelevant in certain instances If you have stated agree or strongly agree please specify which sections or specific items or definitions / explanations are problematic...					

The following sections of the SCJ are helpful / relevant to assessing and managing patient risk:

	1	2	3	4	5
Historical					
Clinical					
Risk					
Suicide/ Self-harm					
Vulnerability					
Escape					
Scenario Planning					
Tilt High risk Summary					
Risk Management Planning					

The following questions relate to your use of the SCJ:

	0	1-5	6-10	10-15	15+
How many SCJ discussions have you participated in?					
How many times have you accessed patient case notes via RiO?					
How many times have you accessed RiO to review SCJ records?					

The following questions relate to identification of SCJ training needs:

I have attended SCJ training via...(indicate all that you have attended, or indicate if you have not received training)

A formal training day (1 day session)	
Training delivered by SCJ team on ward location	
I have not attended formal training, but use the SCJ	
Other	

Should SCJ training be mandatory?	YES	NO

Initial training for new members of staff should be delivered via:

Formal delivery facilitated by a trainer	
Participation during ongoing SCJ discussions	
E-learning	
Combination	

Refresher training should be provided:

Strongly Agree (please answer next 2 questions)	
Agree (please answer next 2 questions)	
Neutral (please disregard next 2 questions)	
Disagree (please disregard next 2 questions)	
Strongly Disagree (please disregard next 2 questions)	

If agree to question above. Please indicate how often refresher training should be completed?

3 monthly	
6 monthly	
Annually	
Every 2 years	
Every 3 years	

Refresher training for new members of staff should be delivered via: (tick all that apply)

Formal delivery facilitated by a trainer	
Participation during ongoing SCJ discussions	
E-learning	
Combination	

What changes, if any, can you suggest that would improve the SCJ? (e.g. document definitions, clinical use, computerised system, other)

If you have any other comments on the SCJ: Risk system, please write them below.

Please save your completed survey and return either a paper copy by post to
Clare Richardson,
SCJ: Risk Project Manager, Room 112, William Tuke House, *or electronically to*
Clare.Richardson@nottshc.nhs.uk
Thank you

Appendix 2.3

Table B1. Summary of the Number and Proportion of Responses Following the Pilot and Implementation Phase

0.1 Frequency of use of the SCJ: Risk system.		P	I	L	O	T		T	O	T	A	L
Number of discussions		1-3	4-6	7-10	14+	-		0	1-5	6-10	10-15	15+
	%	16	50	16	17			0	20	21	10	49

1. Training	PILOT	TOTAL
Proportion of respondents trained in the use of the SCJ: Risk	100%	89%

1.1 Mode of training delivery received		P	I	L	O	T		T	O	T	A	L
	%	1	2	3	4	-		1	2	3	4	-
		70	30	0	0	-		51	38	9	2	-

1= Formal training day. 2= Training on ward location by SCJ: Risk staff. 3= Not attended training, but use SCJ: Risk. 4= Other

1.2 If SCJ: Risk training should be mandatory		P	I	L	O	T		T	O	T	A	L
	%	1	2	-	-	-		1	2	-	-	-
		-	-	-	-	-		83	17	-	-	

1= Yes to mandatory training. 2= No to mandatory training

1.3 How initial training should be delivered		P	I	L	O	T		T	O	T	A	L
	%	1	2	3	4	-		1	2	3	4	-
		-	-	-	-	-		42	25	7	25	

1= Formal training day. 2= Training on ward location. 3= E-learning. 4= Combination

1.4 If refresher training should be provided		P	I	L	O	T		T	O	T	A	L
	%	1	2	3	4	5		1	2	3	4	5
		62	8	30	0	0		23	44	16	15	2

1= Strongly agree. 2= Disagree. 3= Neutral. 4= Disagree. 5= Strongly Disagree

1.4.1 How often refresher training should be completed		P	I	L	O	T		T	O	T	A	L
	%	1	2	3	4	5		1	2	3	4	5
		0	20	80	0	0		0	3	35	48	14

1= 3 monthly. 2= 6 monthly. 3= Annually. 4= Every 2 years. 5= Every 3 years

1.4.2 How refresher training should be delivered		P	I	L	O	T		T	O	T	A	L
	%	1	2	3	4	-		1	2	3	4	-
		-	-	-	-	-		45	37	6	2	-

1= Formal training day. 2= Training on ward location. 3= E-learning. 4= Combination

2. Perception of the SCJ: Risk system		P	I	L	O	T		T	O	T	A	L
If the SCJ: Risk system…:	%	1	2	3	4	5		1	2	3	4	5
2.1 was perceived as useful?		46	50	4	0	0		31	59	5	5	0
2.2 assisted clinical teams make and document risk related decisions?		46	50	4	0	0		29	57	8	6	0
2.3 was useful in documenting the Tilt security review recommendations?		32	64	4	0	0		26	52	17	5	0
2.4 was useful to construction of a risk management plan?		44	48	8	0	0		21	51	23	5	0
2.5 was useful to informing clinical practice?		32	64	4	0	0		15	63	17	5	0
2.6 was useful to informing patient care?		24	56	20	0	0		-	-	-	-	-
2.7 accurately assessed a patient's risk?		24	48	24	4	0		14	46	28	12	0
2.8 helps plan for future scenarios		-	-	-	-	-		17	53	23	7	0

1=Strongly agree. 2= Agree. 3=Neutral. 4=Disagree. 5=Strongly Disagree

3. Usability of the SCJ: Risk system		P	I	L	O	T		T	O	T	A	L
	%	1	2	3	4	5		1	2	3	4	5
3.1 Was the SCJ: Risk more user-friendly than previous risk assessments?		44	32	24	0	0		32	36	24	8	0
3.2 Was it feasible for the clinical team to review every three months?		4	24	28	36	8		17	35	25	17	6
3.2.1 Was it feasible for the clinical team to review every twelve months?		-	-	-	-	-		32	48	9	7	4
3.2.2 Should the SCJ: Risk be reviewed every three months if a patient was identified as high-risk?		-	-	-	-	-		35	46	15	2	2

1=Strongly agree. 2= Agree. 3=Neutral. 4=Disagree. 5=Strongly Disagree

4. Team functioning and multidisciplinary working		P	I	L	O	T		T	O	T	A	L
If the SCJ: Risk system…:	%	1	2	3	4	5		1	2	3	4	5
4.1 *should* be completed in a multi-disciplinary format (all components)		52	36	12	0	0		-	-	-	-	-
4.2 was completed in a multidisciplinary format		40	32	8	20	0		25	50	15	10	0

4.3 improved MDT working		8	40	40	12	0		12	38	39	10	1
4.4 facilitated the respondent in feeling they made a positive contribution		27	58	4	7	4		-	-	-	-	-
4.5 *encountered a resistance within the clinical team		8	13	13	63	3		-	-	-	-	-
4.6 and the associated risk management was being implemented		8	60	24	8	0		-	-	-	-	-

1=Strongly agree. 2= Agree. 3=Neutral. 4=Disagree. 5=Strongly Disagree

5. Piloting / implementation and support		P	I	L	O	T		T	O	T	A	L
	%	1	2	3	4	5		1	2	3	4	5
5.1 Had completion of the SCJ put a significant strain on current clinical resources?		8	36	32	24	0		3	17	43	32	5
5.2 If it was beneficial to have a regular designated time to discuss the SCJ: Risk where all MDT members were present?		54	33	13	0	0		-	-	-	-	-

1=Strongly agree. 2= Agree. 3=Neutral. 4=Disagree. 5=Strongly Disagree

6. Additional resources, policies, procedures and nominated contacts		P	I	L	O	T		T	O	T	A	L
	%	1	2	3	4	5		1	2	3	4	5
6.1 Were additional resources necessary to successfully document the SCJ risk system?		0	52	36	12	0		-	-	-	-	-
6.2 Should the SCJ: Risk system be embedded in policy?		29	45	22	4	0		-	-	-	-	-
6.3 Was it useful to have a contact person (SCJ: Risk coordinator external to the team) to assist clinical team implementation and assist clinical risk decisions.		34	58	8	0	0		15	33	45	6	1
6.4 Was it useful for clinical teams to have a nominated contact(s) to liaise with the SCJ: Risk project manager?		28	56	8	8	0		21	34	33	12	0
6.5 Should the SCJ: Risk be provisionally completed before a patient's admission?		-	-	-	-	-		25	46	18	8	3

1=Strongly agree. 2= Agree. 3=Neutral. 4=Disagree. 5=Strongly Disagree

7. Ongoing evaluation and access of electronic records		P	I	L	O	T		T	O	T	A	L
	%	1	2	3	4	5		1	2	3	4	5
If it was important to respondents that…:												
7.1 elements of the SCJ were evaluated		42	58	0	0	0		-	-	-	-	-
7.2 the outcomes of evaluations were communicated back to clinical teams		48	52	0	0	0		**23**	51	18	7	1

1=Strongly agree. 2= Agree. 3=Neutral. 4=Disagree. 5=Strongly Disagree

		P	I	L	O	T		T	O	T	A	L
		-	-	-	-	-		**0**	**1-5**	**6-10**	**10-15**	**15+**
7.5 Frequency of access of patient case notes via RiO	%	-	-	-	-	-		1	5	3	7	84
7.6 Frequency of access within RiO to review SCJ: Risk records	%	-	-	-	-	-		30	23	13	8	26

1= 0 times accessed 2= 1-5 times accessed 3= 6-10 times accessed 4= 10-15 times accessed 5=15+ times accessed

8. Perceived clarity and relevance of SCJ: Risk document		P	I	L	O	T		T	O	T	A	L
	%	1	2	3	4	5		1	2	3	4	5
*8.1 is unclear in certain sections		-	-	-	-	-		3	15	40	30	12
*8.2 is irrelevant in certain sections		-	-	-	-	-		1	8	37	44	10

1=Strongly agree. 2= Agree. 3=Neutral. 4=Disagree. 5=Strongly Disagree

9. Relevance of HCR-20/ SCJ: Risk total subscales		P	I	L	O	T		T	O	T	A	L
	%	1	2	3	4	5		1	2	3	4	5
9.3 Respondents were asked to indicate which subscales were helpful / relevant to assessing and managing patient risk by scale:												
9.1 Historical (H)								48	48	2	1	1
9.2 Clinical (C)								46	44	9	2	0
9.3 Risk (R)								52	41	6	1	0
9.4 Suicide / Self-harm (S)								40	47	10	3	0
9.5 Vulnerability (V)								39	45	16	1	1
9.6 Escape (E)								44	46	7	2	1
9.7 Scenario Planning								31	43	18	6	2
9.8 Tilt High Risk Summary								45	39	7	7	2
9.9 Risk Management Planning								37	45	10	7	1
9.10 TOTAL AVERAGE RESPONSE (H,C,R)								**49**	**44**	**6**	**1**	**0**
9.11 TOTAL AVERAGE RESPONSE (S,V,E)								**41**	**45**	**11**	**2**	**1**
9.12 TOTAL AVERAGE RESPONSE SCJ: RISK DOCUMENTATION								**42**	**44**	**9**	**3**	**1**

1=Strongly agree. 2= Agree. 3=Neutral. 4=Disagree. 5=Strongly Disagree

Perceived Clinical Utility of the SCJ: Risk System. Number and Proportion of Responses Displayed by Question and Directorate.

Table C.01 Frequency of use of the SCJ: Risk system

Pilot: 1= 1-3 discussions 2= 4-6 discussions 3= 7-10 discussions 4= 14+ discussions
Implementation: 1= 0 discussions 2= 1-5 discussions 3= 6-10 discussions 4= 10-15 discussions 5= 15+ discussions

		P	I	L	O	T	T	O	T	A	L	D	S	P	D		P	D				M	H				L	D				W	S			
		1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
	n	7	23	7	8	-	0	17	18	9	43	0	2	0	5	9	0	0	2	1	11	0	9	12	2	17	0	4	3	0	4	0	2	1	1	2
	%	16	50	16	17		0	20	21	10	49	0	13	0	31	56	0	0	14	7	79	0	23	30	5	42	0	36	28	0	36	0	33	17	0	33

Table C1. Training

1.1 1= Formal training day. 2= Training on ward location by SCJ: Risk staff. 3= Not attended training, but use SCJ: Risk. 4= Other
1.2 1= Yes to mandatory training. 2= No to mandatory training
1.3 1= Formal training day. 2= Training on ward location. 3= E-learning 4= Combination
1.4 1= Strongly agree 2= Agree 3= Neutral 4= Disagree 5= Strongly Disagree
1.4.1 1= 3 monthly 2= 6 monthly 3= Annually 4= Every 2 years 5= Every 3 years
1.4.2 1= Formal training day. 2= Training on ward location. 3= E-learning 4= Combination

		P	I	L	O	T	T	O	T	A	L	D	S	P	D		P	D				M	H				L	D				W	S			
		1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
1.1	N	32	13	0	0	-	44	33	8	2	-	10	3	2	1	-	9	5	0	0	-	19	14	6	1	-	4	7	0	0	-	2	4	0	0	-
	%	70	30	0	0	-	51	38	9	2	-	62	19	13	6	-	64	36	0	0	-	48	35	15	2	-	36	64	0	0	-	33	66	0	0	-
1.2	N	-	-	-	-	-	72	15	-	-	-	16	0	-	-	-	12	2	-	-	-	32	8	-	-	-	8	3	-	-	-	4	2	-	-	-
	%	-	-	-	-	-	83	17	-	-	-	100	0	-	-	-	86	14	-	-	-	80	20	-	-	-	73	27	-	-	-	66	34	-	-	-
1.3	N	-	-	-	-	-	37	22	6	22	-	6	5	1	4	-	5	5	0	4	-	20	6	4	10	-	5	3	1	2	-	1	3	0	2	-
	%	-	-	-	-	-	43	25	7	25	-	38	31	6	25	-	36	36	0	28	-	50	15	10	25	-	46	27	9	18	-	17	50	0	33	-
1.4	N	28	4	13	0	0	20	38	14	13	2	3	8	1	3	1	3	7	2	2	0	8	18	7	6	1	4	5	2	0	0	2	0	2	2	0
	%	62	8	30	0	0	23	44	16	15	2	19	50	6	19	6	22	50	14	14	0	20	45	18	15	2	36	46	18	0	0	33	0	33	34	0
1.4.1	N	0	9	36	0	0	0	2	20	28	8	0	0	6	4	1	0	0	0	6	4	0	2	7	14	3	0	0	7	2	0	0	0	0	2	0
	%	0	20	80	0	0	0	3	35	48	14	0	0	38	25	6	0	0	0	43	29	0	5	18	35	7	0	0	64	18	0	0	0	0	33	0
1.4.2	N	-	-	-	-	-	26	21	3	8	-	5	3	0	3	-	2	7	0	1	-	15	5	3	3	-	4	5	0	0	-	0	1	0	1	-
	%	-	-	-	-	-	45	37	6	2	-	31	19	0	19	-	14	51	0	7	-	38	13	7	7	-	36	46	0	0	-	0	16	0	16	-

Table C2. Perception of the SCJ: Risk System

1= Strongly agree 2= Agree 3= Neutral 4= Disagree 5= Strongly Disagree

		P	I	L	O	T	T	O	T	A	L	D	S	P	D		P	D				M	H				L	D				W	S			
		1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
2.1	N	20	22	3	0	0	27	51	6	3	0	7	7	2	0	0	4	10	0	0	0	10	27	3	0	0	5	4	0	2	0	1	3	1	1	0
	%	46	50	4	0	0	31	59	7	3	0	44	44	12	0	0	29	71	0	0	0	25	68	7	0	0	46	36	0	18	0	17	49	17	17	
2.2	N	20	22	3	0	0	25	50	7	5	0	5	11	0	0	0	3	10	0	1	0	12	22	4	2	0	4	5	0	1	0	1	2	2	1	0
	%	46	50	4	0	0	29	58	8	6	0	31	69	0	0	0	22	71	0	7	0	30	55	10	5	0	36	46	0	8	0	17	33	33	17	
2.3	N	20	22	3	0	0	23	45	15	4	0	2	10	3	1	0	3	9	2	0	0	13	19	7	1	0	4	4	1	2	0	1	3	2	0	0
	%	32	64	4	0	0	26	52	17	5	0	13	63	19	5	0	22	64	14	0	0	32	48	18	2	0	36	36	10	18	0	17	50	33	0	0
2.4	N	14	29	2	0	0	13	55	15	4	0	2	9	5	0	0	3	9	1	1	0	9	19	10	2	0	3	7	1	0	0	0	3	3	0	0
	%	44	48	8	0	0	15	63	17	5	0	13	56	31	0	0	22	64	7	7	0	22	48	25	5	0	27	67	10	0	0	0	50	50	0	0
2.5	N	20	22	3	0	0	18	44	20	5	0	3	10	3	0	0	1	11	1	1	0	6	24	7	3	0	2	4	4	1	0	0	3	3	0	0
	%	32	64	4	0	0	21	51	23	5	0	19	62	19	0	0	7	79	7	7	0	15	60	17	8		18	36	36	10	0	0	50	50	0	0
2.6	N	11	25	9	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	%	24	56	20	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2.7	N	11	21	11	2	0	12	40	24	11	0	3	8	3	2	0	3	6	5	0	0	4	21	8	7	0	3	2	4	2	0	0	1	4	1	0
	%	24	48	24	4	0	14	46	28	12	0	19	50	19	12	0	22	43	35	0	0	10	53	20	17	0	28	18	36	18	0	0	17	66	17	0
2.8	N	-	-	-	-	-	15	46	20	6	0	6	6	4	0	0	2	11	1	0	0	4	24	8	4	0	4	6	1	0	0	0	3	3	0	0
	%	-	-	-	-	-	17	53	23	7	0	37	37	26	0	0	14	79	7	0	0	10	60	20	10	0	36	55	9	0	0	0	50	50	0	0

Table C3. Usability of the SCJ: Risk System

1= Strongly agree 2= Agree 3= Neutral 4= Disagree 5= Strongly Disagree

		P	I	L	O	T	T	O	T	A	L	D	S	P	D		P	D				M	H				L	D				W	S			
		1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
3.1	N	20	14	11	0	0	28	31	21	7	0	8	5	2	1	0	5	4	3	2	0	10	17	10	3	0	3	4	3	1	0	2	1	3	0	0
	%	44	32	24	0	0	32	36	24	8	0	50	31	13	6	0	35	29	22	14	0	25	42	25	8	0	27	36	27	10	0	33	17	50	0	0
3.2	N	2	11	13	16	3	15	30	22	15	5	2	5	3	4	2	3	7	3	1	0	5	13	12	7	3	4	5	1	1	0	1	0	3	2	0
	%	4	24	28	36	8	17	35	25	17	6	13	31	18	25	13	22	49	22	7	0	12	33	30	17	8	36	46	9	9	0	17	0	50	33	0
3.2.1	N	-	-	-	-	-	28	42	8	6	3	2	12	2	0	0	6	6	1	1	0	16	17	5	2	0	3	3	0	3	2	1	4	0	0	1
	%	-	-	-	-	-	32	48	9	7	4	13	74	13	0	0	43	43	7	7		40	42	13	5	0	27	27	0	27	19	17	66	0	0	17
3.2.2	N	-	-	-	-	-	30	40	13	2	2	2	11	3	0	0	4	8	2	0	0	18	14	5	1	2	5	3	2	1	0	1	4	1	0	0
	%	-	-	-	-	-	35	46	15	2	2	13	68	19	0	0	29	57	14	0	0	45	35	13	2	5	46	27	18	9	0	17	66	17	0	0

Table C4. Team Functioning and Multidisciplinary Working

1= Strongly agree 2= Agree 3= Neutral 4= Disagree 5= Strongly Disagree

		P	I	L	O	T	T	O	T	A	L	D	S	P	D		P	D				M	H				L	D				W	S			
		1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
4.1	N	24	16	5	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	%	52	36	12	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4.2	N	18	14	4	9	0	22	44	13	8	0	5	8	3	0	0	5	7	1	1	0	7	26	4	3	0	4	1	3	3	0	1	2	2	1	0
	%	40	32	8	20	0	25	50	15	10	0	31	50	19	0	0	36	50	7	7	0	17	65	10	8	0	36	10	27	27	0	17	33	33	17	0
4.3	N	4	18	18	5	0	10	33	34	9	1	4	7	3	2	0	1	5	6	2	0	3	18	15	4	0	1	3	5	1	1	1	0	5	0	0
	%	8	40	40	12	0	12	38	39	10	1	25	43	19	13	0	7	36	43	14	0	8	45	37	10	0	9	27	46	9	9	17	0	83	0	0
4.4	N	12	26	2	3	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	%	27	58	4	7	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4.5	N	4	6	6	28	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	%	8	13	13	63	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4.6	N	4	27	10	4	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	%	8	60	24	8	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table C5. Piloting / Implementation and Support

1= Strongly agree 2= Agree 3= Neutral 4= Disagree 5= Strongly Disagree

		P	I	L	O	T	T	O	T	A	L	D	S	P	D		P	D				M	H				L	D				W	S			
		1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
5.1	N	4	16	14	11	0	3	15	37	28	4	1	2	9	3	1	0	2	7	5	0	1	10	13	13	3	0	0	6	5	0	1	1	2	2	0
	%	8	36	32	24	0	3	17	43	32	5	6	13	56	19	6	0	14	50	36	0	2	25	32	33	8	0	0	54	46	0	17	17	33	33	0
5.2	N	24	15	6	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	%	54	33	13	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table C6. Additional Resources, Policies, Procedures and Nominated Contacts

1= Strongly agree 2= Agree 3= Neutral 4= Disagree 5= Strongly Disagree

		P	I	L	O	T	T	O	T	A	L	D	S	P	D		P	D				M	H				L	D				W	S			
		1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
6.1	N	0	23	17	5	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	%	0	52	36	12	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6.2	N	13	20	10	2	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	%	29	45	22	4	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6.3	N	15	26	4	0	0	13	29	39	5	1	2	10	4	0	0	2	5	7	0	0	7	11	18	3	1	2	2	5	2	0	0	1	5	0	0
	%	34	58	8	0	0	15	33	45	6	1	13	62	25	0	0	14	36	50	0	0	17	27	45	8	3	18	18	46	18	0	0	17	83	0	0
6.4	N	12	25	4	4	0	18	30	29	10	0	5	4	5	2	0	7	7	0	0	0	5	14	15	6	0	0	4	6	1	0	1	1	3	1	0
	%	28	56	8	8	0	21	34	33	12	0	31	25	31	13	0	50	50	0	0	0	13	35	38	14	0	0	36	54	10	0	17	16	50	17	0
6.5	N	-	-	-	-	-	21	40	16	7	3	4	7	5	0	0	2	8	2	2	0	11	18	6	3	2	2	6	1	2	0	2	1	2	0	1
	%	-	-	-	-	-	25	46	18	8	3	25	44	31	0	0	15	57	14	14	0	28	45	15	8	4	18	54	10	18	0	33	17	33	0	17

Table C7. Ongoing Evaluation and Access of Electronic Records

1= Strongly agree 2= Agree 3= Neutral 4= Disagree 5= Strongly Disagree

		P	I	L	O	T	T	O	T	A	L	D	S	P	D		P	D				M	H				L	D				W	S			
		1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
7.1	N	19	26	0	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	%	42	58	0	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7.2	N	21	24	0	0	0	20	44	16	6	1	3	9	3	0	1	2	5	5	2	0	8	23	6	3	0	4	5	2	0	0	3	2	0	1	0
	%	48	52	0	0	0	23	51	18	7	1	19	56	19	0	6	14	36	36	14	0	20	58	15	7	0	36	46	18	0	0	50	33	0	17	0

1= 0 times accessed 2= 1-5 times accessed 3= 6-10 times accessed 4= 10-15 times accessed 5= 15+ times accessed

		P	I	L	O	T	T	O	T	A	L	D	S	P	D		P	D				M	H				L	D				W	S			
		1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
7.5	N	-	-	-	-	-	1	4	3	6	73	0	0	1	1	14	0	0	0	0	14	0	3	2	3	32	0	1	0	2	8	1	0	0	0	5
	%	-	-	-	-	-	1	5	3	7	84	0	0	6	6	88	0	0	0	0	00	0	8	4	8	80	0	9	0	18	73	17	0	0	0	83
7.6	N	-	-	-	-	-	26	20	11	7	23	3	3	4	2	4	5	3	1	0	5	11	9	5	5	10	5	3	0	0	3	2	2	1	0	1
	%	-	-	-	-	-	30	23	13	8	26	19	19	25	12	25	36	21	7	0	36	28	23	12	12	25	46	27	0	0	27	33	33	17	0	17

Table C8. Perceived Clarity and Relevance of SCJ: Risk Document

1= Strongly agree 2= Agree 3= Neutral 4= Disagree 5= Strongly Disagree

		P	I	L	O	T	T	O	T	A	L	D	S	P	D		P	D				M	H				L	D				W	S			
		1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
8.1	N	-	-	-	-	-	3	13	35	26	10	1	2	3	6	4	0	0	5	7	2	2	8	18	8	4	0	1	5	5	0	0	2	4	0	0
	%	-	-	-	-	-	3	15	40	30	12	6	13	18	38	25	0	0	36	50	14	5	20	45	20	10	0	10	46	45	0	0	33	67	0	0
8.2	N	-	-	-	-	-	1	7	32	38	9	0	1	4	11	0	0	3	2	6	3	1	2	16	15	6	0	0	6	5	0	0	1	4	1	0
	%	-	-	-	-	-	1	8	37	44	10	0	6	25	69	0	0	22	14	42	22	3	5	40	38	14	0	0	55	45	0	0	17	66	17	0

Table C9. Relevance of HCR-20/ SCJ: Risk Total Subscales

1= Strongly agree 2= Agree 3= Neutral 4= Disagree 5= Strongly Disagree

		P	I	L	O	T	T	O	T	A	L	D	S	P	D		P	D				M	H				L	D				W	S			
		1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
9.1	N	-	-	-	-	-	42	41	2	1	1	5	9	2	0	0	7	7	0	0	0	22	18	0	0	0	5	5	0	1	0	3	2	0	0	1
	%	-	-	-	-	-	48	48	2	1	1	31	56	13	0	0	50	50	0	0	0	55	45	0	0	0	45	45	0	10	0	50	33	0	0	16
9.2	N	-	-	-	-	-	39	38	8	2	0	6	7	2	1	0	6	8	0	0	0	20	18	2	0	0	4	4	2	1	0	3	1	2	0	0
	%	-	-	-	-	-	46	44	9	2	0	39	44	13	6	0	43	57	0	0	0	50	45	5	0	0	36	36	18	10	0	50	17	33	0	0
9.3	N	-	-	-	-	-	45	36	5	1	0	12	3	1	0	0	6	7	1	0	0	20	19	1	0	0	4	5	2	0	0	3	2	0	1	0
	%	-	-	-	-	-	52	41	6	1	0	75	19	6	0	0	43	50	7	0	0	50	48	2	0	0	37	45	18	0	0	50	33	0	16	0
9.4	N	-	-	-	-	-	35	40	9	3	0	6	5	4	1	0	6	7	1	0	0	15	23	1	1	0	5	4	2	0	0	3	1	1	1	0
	%	-	-	-	-	-	40	47	10	3	0	38	31	25	6	0	43	50	7	0	0	38	58	2	2	0	45	37	18	0	0	50	17	17	16	0
9.5	N	-	-	-	-	-	34	37	14	1	1	6	5	5	0	0	6	7	1	0	0	15	19	5	0	0	4	5	2	0	0	3	1	1	1	0
	%	-	-	-	-	-	39	45	16	1	1	38	31	31	0	0	43	50	7	0	0	38	48	14	0	0	37	45	18	0	0	50	17	17	16	0
9.6	N	-	-	-	-	-	38	40	6	2	1	9	5	2	0	0	5	7	2	0	0	16	22	0	1	1	5	5	1	0	0	3	1	1	1	0
	%	-	-	-	-	-	44	46	7	2	1	56	31	13	0	0	36	50	14	0	0	41	55	0	2	2	45	45	10	0	0	50	17	17	16	0
9.7	N	-	-	-	-	-	27	37	16	5	2	5	7	4	0	0	3	10	1	0	0	13	16	7	3	1	4	3	2	2	0	2	1	2	0	1
	%	-	-	-	-	-	31	43	18	6	2	31	44	25	0	0	22	71	7	0	0	33	40	17	8	2	36	28	18	18	0	33	17	33	0	16
9.8	N	-	-	-	-	-	39	34	6	6	2	12	2	1	1	0	5	5	2	2	0	16	19	3	1	1	4	5	0	2	0	2	3	0	0	1
	%	-	-	-	-	-	45	39	7	7	2	75	13	6	6	0	36	36	14	14	0	40	48	8	2	2	34	45	0	18	0	33	50	0	0	17
9.9	N	-	-	-	-	-	32	39	9	6	1	7	3	5	1	0	5	8	0	1	0	14	22	2	1	1	4	4	1	2	0	2	2	1	1	0
	%	-	-	-	-	-	37	45	10	7	1	44	19	31	6	0	36	57	0	7	0	36	55	5	2	2	36	36	10	18	0	33	33	17	16	0

Table C9 ctd

		P	I	L	O	T	T	O	T	A	L	D	S	P	D		P	D				M	H				L	D				W	S			
		1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
9.10	N	-	-	-	-	-	42	38	5	1	1	8	6	1	1	0	6	7	1	0	0	21	18	1	0	0	4	5	1	1	0	3	2	1	0	0
	%	-	-	-	-	-	49	44	6	1	0	48	39	11	2	0	46	52	2	0	0	52	46	2	0	0	39	42	12	7	0	50	28	12	5	5
9.11	N	-	-	-	-	-	35	39	10	3	1	7	5	4	1	0	5	7	1	0	0	15	21	2	1	1	5	5	1	0	0	3	1	1	1	0
	%	-	-	-	-	-	41	45	11	2	1	44	31	23	2	0	41	50	9	0	0	39	54	5	1	1	42	42	16	0	0	50	17	17	16	0
9.12	N	-	-	-	-	-	37	38	8	3	1	8	3	3	2	0	5	7	1	1	0	17	19	2	1	1	4	4	2	1	0	3	1	1	1	0
	%	-	-	-	-	-	42	44	9	3	1	47	32	19	2	0	39	52	6	2	1	43	49	6	2	0	39	40	12	9	0	44	26	15	10	5

Appendix Three

Table D1. Frequencies of any intra-institutional behaviour over a 12 month period[2]

Any incident	T1 IR1s						T2 IR1s					
	n	%	mean	SE	SD	Range	*n*	%	mean	SE	SD	Range
Total	119	55	4.37	.612	9.01	0-62	129	59	5.99	.812	11.96	0-82
DSPD	26	93	5.89	1.087	5.89	0-22	25	89	9.18	2.22	11.78	0-46
PD	24	47	3.02	1.06	7.59	0-48	29	57	4.82	1.51	10.84	0-69
MH	30	33	1.07	.227	2.17	0-11	32	35	1.03	.198	1.89	0-10
LD	19	91	5.57	1.06	4.88	0-17	19	91	7.00	1.28	5.89	0-21
WS	20	80	16.56	3.64	18.23	0-62	24	96	22.16	4.29	21.49	0-82

[2] Descriptors and frequencies (baserates) of categories within levels related to each defined incident of intra-institutional behaviour measured by use of IR1s. T1 refers to IR1 information submitted in the six months prior to full SCJ: Risk implementation (between 01.07.2006 and 31.12.06). T2 refers to the second time period of interest reflecting a six month period following SCJ: Risk implementation (between 01.01.2007 and 20.06.2007)

Table D2. Frequencies of Intra-institutional Behaviour Related to Violence Over a 12 Month Period. Displayed by Time Period and Directorate.

Violence	Behavioural descriptor	Total IR1s		Total IR1s		DSPD		DSPD		PD		PD		MH		MH		LD		LD		WS		WS	
		T1		T2		T1		T2		T1		T2		T1		T2		T1		T2		T1		T2	
		n	%	*n*	%	*n*	%	*N*	%	*n*	%	*N*	%	*n*	%	*n*	%	*n*	%	*N*	%	*n*	%	*n*	%
Any	Any violence	106	49	121	56	23	82	22	78	21	41	29	57	24	26	29	32	18	86	18	86	20	80	23	92
Any Level 1 Violence	Any Level 1 Violence	42	19	55	25	7	25	8	29	8	16	11	22	10	11	11	12	8	38	10	48	9	36	15	60
Level 1	Physical assault toward staff	15	7	20	9	3	11	5	18	2	4	7	14	5	5	1	1	4	19	3	14	1	4	4	16
	Physical assault toward patient	32	15	41	19	5	18	4	14	6	12	7	14	4	4	10	11	8	38	6	29	9	36	14	56
Any Level 2 Violence	Any Level 2 Violence	101	47	114	53	22	79	23	82	19	37	27	53	23	25	24	26	17	81	17	81	20	80	23	92
Level 2	Aggressive/hostile toward staff	17	8	22	10	1	4	5	18	4	8	5	10	2	2	4	4	3	14	2	10	7	28	6	24
	Aggressive/hostile toward patient	9	4	2	1	1	4	1	4	-	-	-	-	1	1	-	-	4	19	1	5	3	12	-	-
	Aggressive/hostile generally	34	15	31	14	6	21	7	25	4	8	3	6	10	11	4	4	3	14	5	24	11	44	12	48
	Alleged physical assault toward staff	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Alleged physical assault to patient	4	18	1	1	2	7	0	0	0	0	0	0	2	2	0	0	0	0	1	5	0	0	0	0
	Attempted assault toward staff	20	9	25	12	1	4	1	4	3	6	5	10	3	3	4	4	5	24	4	19	8	32	11	44

Violence ctd...	Behavioural descriptor	Total IR1s		Total IR1s		DSPD		DSPD		PD		PD		MH		MH		LD		LD		WS		WS	
		T1		T2		T1		T2		T1		T2		T1		T2		T1		T2		T1		T2	
		n	%	*n*	%	*n*	%	*n*	%	*n*	%	*N*	%	*n*	%	*n*	%	*n*	%	*N*	%	*n*	%	*n*	%
	Attempted assault toward patient	5	2	6	3	0	0	0	0	3	6	4	8	1	1	0	0	1	5	0	0	0	0	2	8
	Damage to organisational property	4	2	8	4	0	0	6	21	0	0	1	2	2	2	0	0	1	5	1	5	1	4	0	0
	Harassment toward staff	9	4	16	7	3	11	3	11	1	2	3	6	0	0	2	2	2	10	3	14	3	12	5	20
	Restraint of a patient	20	9	26	12	2	7	1	4	2	4	5	10	2	2	1	1	4	19	6	29	10	40	13	52
	Threat of physical violence toward staff	33	15	59	27	8	29	15	53	7	14	15	29	2	2	8	9	6	29	7	33	10	40	14	56
	Threat of physical violence toward patient	25	12	38	18	7	25	9	32	1	2	11	22	4	4	4	4	5	24	5	24	8	32	9	36
	Threat of physical violence in general	16	7	23	11	9	32	8	29	2	39	7	14	0	0	3	3	2	10	2	10	3	12	3	12
	Verbal abuse in general	62	29	60	28	15	54	16	57	13	26	15	29	13	14	9	10	9	43	7	33	12	48	13	52
	Other behaviour including violence	14	7	19	9	3	11	6	21	2	4	2	4	5	5	2	2	1	5	4	19	3	12	5	20

Table D3. Frequencies of Intra-institutional Behaviour Related to Suicide/Self-harm Over a 12 Month Period

Suicide/ Self-harm	Behavioural descriptor	Total IR1s		Total IR1s		DSPD		DSPD		PD		PD		MH		MH		LD		LD		WS		WS	
		T1		T2		T1		T2		T1		T2		T1		T2		T1		T2		T1		T2	
		n	%	*n*	%	*n*	%	*n*	%	*N*	%	*n*	%	*n*	%	*n*	%	*n*	%	*N*	%	*n*	%	*n*	%
Any	Any suicide/self-harm	48	22	49	23	10	36	10	36	10	20	8	16	5	5	4	4	8	38	7	33	15	60	20	80
Level 1	Significant injury sustained during attempted self-harm attempt	2	1	5	2	0	0	0	0	0	0	1	2	0	0	0	0	0	0	0	0	2	8	4	16
Level 2	Minor injury sustained during attempt of self-harm	43	20	48	22	8	29	9	32	9	18	7	14	5	5	4	4	6	29	7	33	15	60	21	84
Level 3	No injury sustained during self-harm attempt	21	10	22	10	4	14	5	18	5	10	2	4	1	1	0	0	4	19	2	10	7	28	13	52

Table D.4. Frequencies of Intra-institutional Behaviour Related to Escape, Vulnerability and Subversion over a 12 Month Period

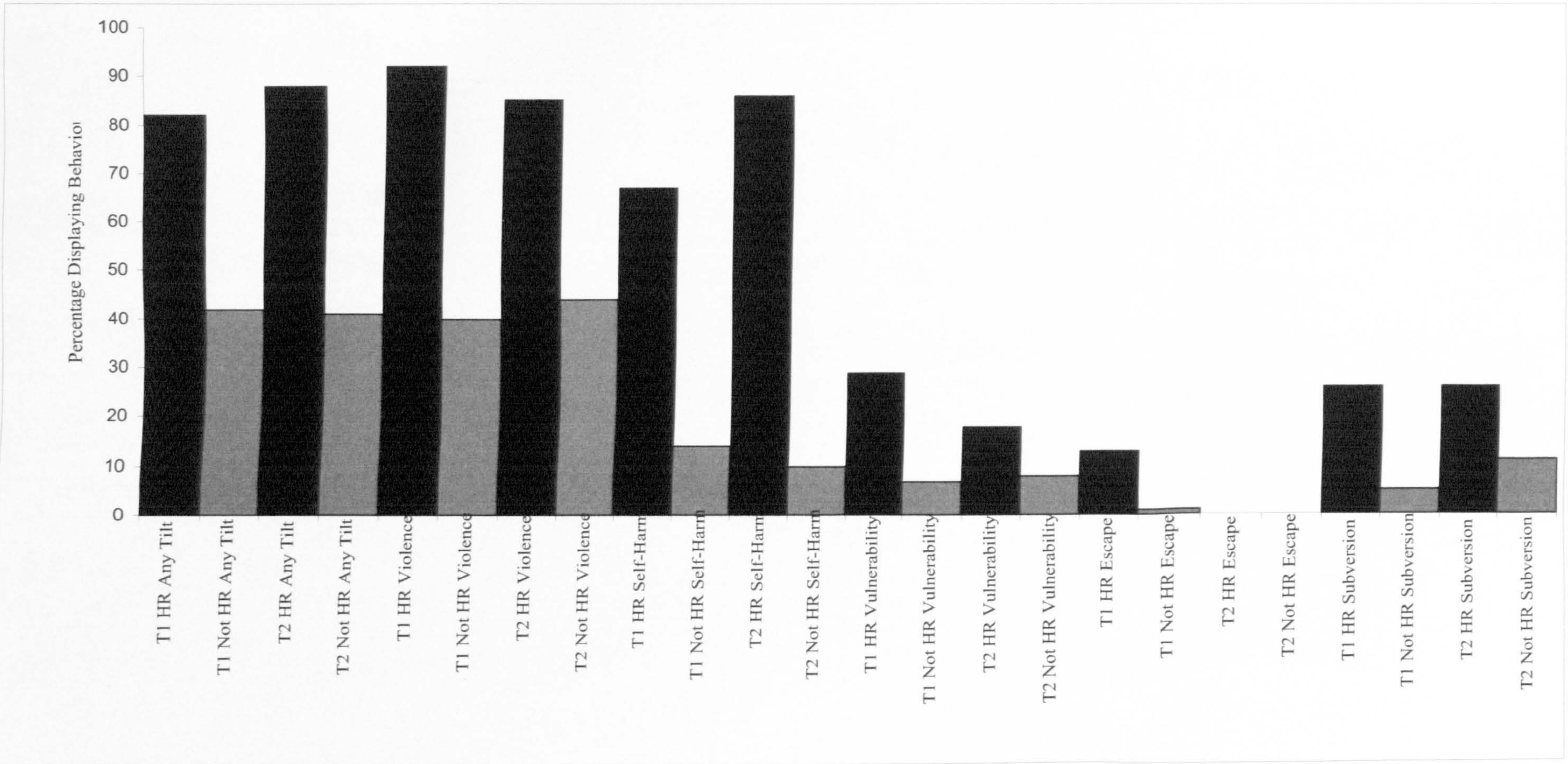
Escape	Behavioural descriptor	Total IR1s		Total IR1s		DSPD		DSPD		PD		PD		MH		MH		LD		LD		WS		WS	
		T1		T2		T1		T2		T1		T2		T1		T2		T1		T2		T1		T2	
		n	%	*n*	%	*n*	%	*N*	%	*N*	%	*n*	%	*n*	%	*n*	%	*N*	%	*N*	%	*n*	%	*n*	%
Any	Any escape	2	1	0	0	1	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	4	0	0
	Actual escape from detention	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Successful abscond	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Missing person	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Attempt to abscond	2	1	0	0	1	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	4	0	0
Vulnerability Any	Any vulnerability	17	8	20	9	3	11	2	7	2	4	4	8	3	3	4	4	4	19	3	14	0	0	7	28
	Harassment	14	7	13	6	3	10	2	7	1	2	2	4	2	2	2	2	3	14	1	5	5	20	6	24
	Racial harassment	2	1	5	2	0	0	0	0	0	0	1	2	1	1	1	1	1	5	2	10	0	0	1	4
	Sexual harassment	1	1	4	2	0	0	0	0	1	2	2	4	0	0	1	1	0	0	1	5	5	20	0	0
Subvert Security and Safety Any	Any subvert security / safety	36	17	29	13	11	36	5	18	2	4	5	10	8	9	8	9	3	14	5	24	12	48	6	24
	Hostage situation	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Drugs / alcohol	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Other security incident	36	17	30	14	11	39	5	18	2	4	6	12	8	9	8	9	3	14	5	24	12	48	6	24

Appendix Four

Table E1. Table to Show the Proportion of Patients Identified as High-Risk in Each of the Tilt Categories of Intra-Institutional Behaviour Relevant to the Needs of a High-Secure Hospital

	Total		Total		DSPD		DSPD		PD		PD		MH		MH		LD		LD		WS		WS	
	T1		T2		T1		T2		T1		T2		T1		T2		T1		T2		T1		T2	
	n	%	*n*	%	*n*	%	*n*	%	*n*	%	*n*	%	*n*	%	*n*	%	*n*	%	*n*	%	*n*	%	*n*	%
1. Identified as presenting a risk in any one of the Tilt categories below (1.1-1.5)	50	33	82	38	9	32	24	86	8	16	14	28	7	8	11	12	9	43	12	57	17	68	21	64
1.1 Immediate risk of harming others	37	26	61	28	8	29	20	71	5	10	8	16	5	5	8	9	8	38	11	52	11	44	14	11
1.2 Risk of suicide or self-harm	27	18	35	16	5	18	6	21	4	8	5	10	2	2	2	2	4	19	6	29	12	48	16	9
1.3 Vulnerability to risk from others	14	9	28	13	2	7.1	10	36	1	2	3	6	-	-	3	3	5	23	4	19	6	24	8	17
1.4 Risk of escape	8	5	15	7	2	7.1	3	11	1	2	3	6	1	1	1	1	13	62	1	5	4	16	7	18
1.5 Risk of organised action in collaboration with others to subvert security and safety	27	18	42	19	5	18	10	36	4	67	9	18	3	3	4	4	3	14	4	19	12	48	15	60

Figure B1. Graph to Show Proportion of Individuals Manifesting Risk-Related Behaviour as Categorised by Tilt Final Judgement[3]



[3] HR = High Risk